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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

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NOTICE.

The arrangement of the program for the next meeting of the State Society, so far as all papers relating to Eye, Ear, Nose and Throat diseases are concerned, has been placed in the hands of a committee of the San Francisco Society of Eye, Ear, Nose and Throat Surgeons. All members desiring to read papers in this section, should send the title and an abstract of the paper to Dr. W. Scott Franklin, Dana Building, San Francisco.

A NEW YEAR.

With the new year begins the fourth year of the life of your JOURNAL, and your Publication Committee begs leave to extend to each and every member of the Society its hearty good wishes for a very happy, peaceful and prosperous New Year. We have much to be thankful for and much to look forward to in this coming year and those which will follow it. We ask you to give us your help and your support; when you see any point in which you think your JOURNAL may be improved, please write to the Publication Committee and set forth your views; we can assure you that your courtesy in so doing will be highly appreciated. We are striving as best we may, and with all our energy, to place in your hands each month just as good a journal as we can possibly put together; but we know that there is plenty of room for improvement. Help us toward the improvements by your serious suggestions. As a wish for the new year, let us earnestly hope that every one of us will remember that the "master word in medicine is WORK," and let us try to do everything we individually can to bring about "unity, peace and concord." Let us have always in mind the dignity of our profession, and let us do nothing that may detract from it, and say no word that may bring disrepute upon a brother physician. If there be one of whom we can say no good, let us at least remain silent and without adverse criticism. To belittle each other is to belittle ourselves and our profession and to lower ourselves in the eyes of the public. Let us dwell together in that charity which can forgive much and in the end help much, and may that "peace of God which passeth all understanding" abide with us and be a part of our lives during the coming year.

REQUIESCAT IN PACE.

With the passing of the old year, died the *Medical News*, a journal which for nearly sixty years had occupied an honorable position in the field of American medical journalism. The mere death of a medical journal is in itself a matter of no especial import, for journals come and journals go, while the nostrum goes on forever.

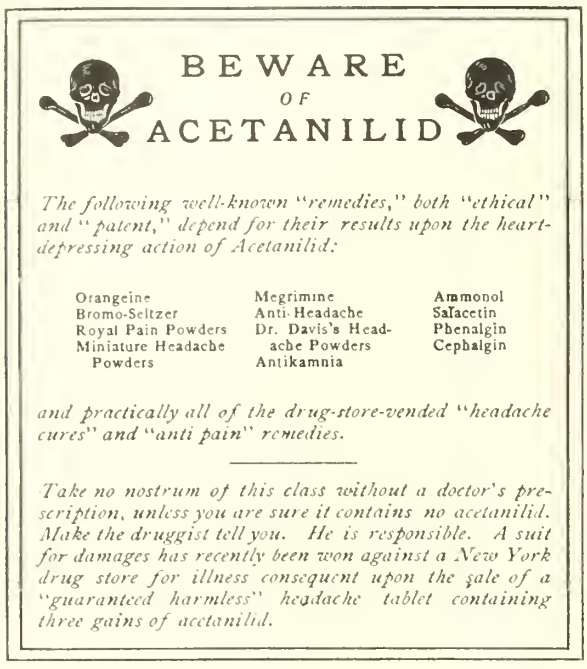
The particularly unhappy incident in this case is the fact that the *Medical News* has been absorbed by the A. R. Elliott Publishing Company, an institution which publishes the *New York Medical Journal* and the *American Druggist;* it has been suggested as a sort of "side line" to the advertising agency of A. R. Elliott. Elsewhere in this issue we put before you some examples of the claims which this company makes for one of its publications, and by way of contrast, some illustrations of the manner in which it supports (?) these claims in actual practice. Comment seems quite superfluous; we mourn that the *Medical News* had not a worthier death.

COLLIER'S ON ACETANILID.

The fourth of the series of articles on the "Great American Fraud" appeared in *Collier's* for December 2d, and again we earnestly commend this publication to your attention. Every practicing physician in the United States should read these articles and be in possession of the information which *Collier's* is thus presenting. Furthermore, it is the duty of every physician to see that his patients are informed on these matters. Heretofore we have failed in our duty in that we have not educated the public in the commonest of the dangers that assail them; this should be changed, and we should see to it that they know just what they are drugging themselves with when they use these nostrums—these so-called "patent medicines," which the *San Francisco Call* states editorially can do no harm.

Doubtless the *Call* takes considerable thought to the many advertising contracts which are probably on file in its business office, and which, and also probably, contain the damning clause which has done away with the freedom of the press.

This is what *Collier's* thinks about the numerous nostrums composed largely of acetanilid:


BEWARE
OF
ACETANILID
The following well-known "remedies," both "ethical" and "patent," depend for their results upon the heart-depressing action of Acetanilid:
Orangeine
Bromo-Seltzer
Royal Pain Powders
Miniature Headache Powders
Megrimine
Anti-Headache
Dr. Davis's Headache Powders
Antikamnia
Ammonol
Salacetin
Phenalgin
Cephalgin
and practically all of the drug-store-vended "headache cures" and "anti pain" remedies.
Take no nostrum of this class without a doctor's prescription, unless you are sure it contains no acetanilid. Make the druggist tell you. He is responsible. A suit for damages has recently been won against a New York drug store for illness consequent upon the sale of a "guaranteed harmless" headache tablet containing three gains of acetanilid.

This cut we will have reprinted on slips and would suggest that you send for some and keep a few in your waiting room, so that your patients may know what these "medicines" are, and that they not infrequently kill. We would also respectfully commend to the attention of Mr. Bartow S. Weeks, attorney for the Etna Chemical Co., manufacturers of "phenalgin," the issue of *Collier's Weekly* containing the article from which we have borrowed this illustration.

A NICE BUSINESS.

The business of making nostrums and foisting them upon the medical profession first, and in that way upon the people later, is a particularly nice, clean and honorable one—perhaps. At any rate it is an extensive calling, and represents the investment of a good deal of capital in—shall we say, fraud? Believing that some of our members possibly do not see as many medical journals as come through our office, we have taken the liberty of reproducing some of their advertising pages so that you may see for yourselves what sort of valuable and beneficent products are presented to the medical profession—a profession that is supposed to be made up of educated, thinking men. Note the standing and character of the journals which, for money, are willing to state that "anasarcin" is a "positive cure for dropsy";* consider the dignified attitude of some of these journals in aiding the newspapers of the land in the sale of fig syrup and santal-midy. If we undertook to comment on all of the rottenness in the nostrum business and in the "medical" journals which are controlled by these nostrums, there would be no room for anything else in your JOURNAL, and so we can only touch upon them casually here and there. We feel that we cannot begin the year better, nor in a more satisfactory way assure you that the policy of your Publication Committee in attacking the nostrums will be continued during the coming year, than by offering you the reproductions which appear in this issue. Are they not edifying? Should we not congratulate ourselves upon the character of our "medical" journals? Is it not nice and pleasant to see them helping the newspapers to help Mr. Pond, or somebody else, to secure a fortune by deluding the people and the ignorant in our profession, into buying "Pond's Extract," an article which Dr. Wood is reported to have said is perhaps as valuable as brick dust? One can see quite clearly that Mr. A. R. Elliott and other publishers of "medical-journals-for-profit" have a very high idea of the intelligence of their readers in recommending for their consideration and use the large assortment of worthless nostrums to be found in their advertising pages. And the unfortunate fact is, that if physicians were not fooled into using these nostrums by seeing the frauds so extensively advertised in "medical" journals, the frauds would soon die, for they do not live by merit, but in spite of a lack of it. We can assure you that we have not been paid for advertising either the journals or the nostrums found in the reproductions which we publish this month. This courtesy is extended to them quite gratuitously, and we hope that they will appreciate the kind attention.

Explain to your friends and patients that practically every newspaper in the United States is a silent partner in the nostrum fraud business. That it is bound to silence and to aid in defrauding the people into using alcoholic nostrums by the following clauses in its advertising contracts with the nostrum trust:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper, in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See *Collier's Weekly*, Nov. 4, 1905.)

* We are very glad to state that since our illustrations were prepared we have received information that the *Alkaloidal Clinic* has discontinued this and some other objectionable advertisements.

A SIMPLE ILLUSTRATION.

Not so very long ago, a woman in San Francisco consulted a physician, and left his office to go to a drug store, carrying three or four prescriptions; one of these was for "pepto-mangan (Gude)." She presented all of the other prescriptions to the clerk, but held up the one especially mentioned and asked him if it did not call for "pepto-mangan." He replied that it did. Upon this the lady in question put the prescription in her pocket-book and asked for a bottle of "Lydia Pinkham's compound," saying that if the physician thought one "patent medicine" was good, she thought another was better, and preferred to take that one of her own choosing. What an increased respect for that physician she must have had! How she must have exalted his learning and intelligence! And what a compliment he paid her—to rank her intelligence so high that she considered herself quite on a par with her physician, when it came to choosing which "patent medicine" she should take!

DRUGGIST OR PHARMACIST?

In times past, pharmacy was considered a highly respectable calling and the pharmacist was regarded as a professional man; he was a prototype of the present physician, as the barber was the predecessor of the surgeon. More recently the pharmacist, still regarded as the follower of a professional calling, was regarded as the ally of the physician. But does that relationship maintain at the present time? Is the individual who dispenses drugs to be regarded as a pharmacist, the follower of a profession, or as a druggist, one who merely buys and sells drugs as a purely commercial occupation, incidentally selling alcoholic, cocain and morphine nostrums to whomsoever will buy, and refilling physicians' prescriptions just as often and just as indiscriminately as the public may desire and be prepared to pay for such potions? It seems to us that this druggist question is now no longer a theory, but has become a condition which necessitates serious consideration by the medical profession. Lay publications (*Collier's Weekly*, the *Ladies' Home Journal*, etc.) have shown that most of the so-called "patent medicines" are either worthless frauds or are alcoholic, cocain or morphine mixtures. To sell the former class to the deluded people is to participate in a direct fraud; to deal in the latter class of preparations is worse than a fraud, it is participation in a serious crime. We have reached the parting of the ways. Is it the purpose of the former ally of the physician to again become a professional pharmacist and cease from participation in fraud and crime, or is it the intention of the druggists to be merely commercial entities and share in the proceeds of defrauding and debauching the public? What is to be the purpose of the various associations of retail druggists? Is it to stimulate professional pharmacy, or is it to boom the sale of any fraudulent or worthless nostrum for which the manufacturer will agree to fix and maintain a price sufficiently high, so that the retailer of the fraud may participate in the crime? It should be the duty of every county medical society in the United States to take this matter up with the local druggists (or pharmacists?) and demand some definite statement of their attitude.

Where is the freedom of the press? Practically every newspaper in this country has been bought by the alcoholic nostrum manufacturers and has signed advertising contracts with them which contain the following clauses:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See *Collier's Weekly*, Nov. 4, 1905.)

SOME PROGRESS.

In the matter of the fees for life insurance examinations, we have to report progress since last month. We are now compiling information relating to every company doing business in this State, and hope in a short time to be able to place it before you. In the meantime, we know of two companies that have instructed their agents to pay the $5 fee in this State when it is demanded, and under no circumstances to allow any trouble on this score to arise. It seems to be quite evident that it is only a matter of time when the minimum fee paid for a life insurance examination in California will be $5; that is, *if the physicians of the State want it to be so.* It is all up to you. If you will insist upon this, and fight it out, you will certainly win. The medical directors of several companies have written us that, in their estimation $5 is little enough to pay for the work done, and that a cheap examination is really worthless. Just use all your personal influence in diverting business from the cheap and careless companies to those which have enough thought for their policy holders to pay for a proper examination and pay a decent fee. Physicians have too long regarded themselves as impotent in the hands of these mighty corporations, and hence they have been paid but scant consideration.

You have the power to alter this condition of things, if you care to exert it. Will you do so? Do you care to see a change?

THE A. M. A. DIRECTORY.

It seems hardly necessary to call the attention of our members to the value of a complete file of information relating to licensed physicians, for in this State an official Register has been published for nearly twenty years. Heretofore, however, there has been no such registration of information covering the entire United States, and all published Registers or Directories have been very faulty. It is for that reason that the American Medical Association has undertaken to compile this data and then to publish a directory which will be really reliable. Every physician in the State should fill out and return promptly the information blank which has been sent him by the secretary of the A. M. A. All of the information requested will not be used for publication, any more than all the information asked for on the cards which we use for our State work appears in our Register; but it is necessary for identification purposes. Please be prompt about sending in the information blanks, and thus expedite the work of bringing out a good directory.

DR. McCORMACK'S ADDRESSES ON ORGANIZATION.

(*Concluded from page 377, Vol. III, No. 12.*)

Most of the meetings of county medical societies in the past, and many at the present time, are not of very great value. In too many instances the proceedings will be about as follows: A summary of minutes will be read, and then Dr. Blank will be called upon to read a paper. This is liable to be upon the treatment of typhoid fever, proper management of labor, or, if it is in the spring, on the summer diarrhea of infants. The paper is made up of extracts from some long-since antiquated textbook, and both it and the author should have had several new editions brought out to bring it up to date. After the paper is read there will be a profound silence, until the presiding officer states that the paper is now before the society and calls upon Dr. X. to open the discussion. Dr. X. arises and his discussion is apt to be about as follows: "Mr. President and fellow members, I fear that I have not been so regular an attendant at the meetings of our county society in the past as I should have been. But when I listen to such an excellent paper as has been presented to us to-night by Dr. Blank, I feel that I shall be more regular in the future. Dr. Blank has presented such a masterly paper and has placed the information so clearly before you, that there seems to me to be nothing left that I can add to what he has said. I will therefore ask you to excuse me and call upon some other member, who may possibly be able to add to the subject under discussion." That sort of a meeting is almost enough to make any studious and hard working physician keep away from his county society more industriously than ever.

By contrast, consider what a county society should do, and what a few are doing at the present time. Its secret of success is in work; regular, systematic work. It should meet once a week, or oftener, if possible, and regular courses of work should be outlined and taken up. From September to May, the business of the county society, and of every member of it, should be to make the society a practical post-graduate medical school. In order to secure the evenings free, physicians should make their night rates go into effect at 8 o'clock, and should advise their patients that they will get better attention at half the cost if they will have the forethought to call their physician, when they need him, before that hour. Nine out of every ten night calls are totally unnecessary; the doctor might just as well have been called before eight, or the next day; generally when the doctor is called out at night it is due to unthinking selfishness.

There is not a physician who has been in practice for any number of years who has not grown rusty in some branches, and who would not be improved by regular courses of study. Who of us who has not been constantly at work in the dissecting room would not be improved by a good course in practical anatomy? Who would not benefit by a course on materia medica which would take up the work of the Council on Pharmacy and Chemistry and talk plain facts as to the nature and composition of the many fraudulent nostrums recommended to our profession? As individuals, we do not know the real truth about most of these things, and our medical journals tell us only the manufacturers' side.

Every one of the regular lines of medical study should be taken up by the county society and regular courses of work followed. There is not a single advantage that is open to doctors in New York or Paris or Berlin that is not open to every member of every county medical society, if he will but work for it. If the members will abide together in peace and charity, looking after their own and each others' interests and working together for the common good, they will all be better doctors and the public will more nearly receive what it expects—competent medical attendance. Different members should go to other places from time to time, and take post-graduate work and then come back and give the county society the benefit of their studies. In a well-organized and properly operating county medical

society, there will hardly be a time when some member is not away doing this work, the other members looking after his practice while he is away.

The old plan of desultory and generally worthless papers and aimless discussion should be done away with, and regular courses of work substituted for it. Occasional meetings should be arranged with the legal fraternity, and subjects of common interest discussed. It will be found that most of our lawyers do not know what the physicians are trying to do, nor what the legislation which they advocate really means. It is all altruistic and the public and not the medical profession benefits. This absence of self-interest should not only be clearly shown to the lawyers, but also to the clergy, and to that end meetings should be held with the ministerial association of the county, and the ministers educated to the harm they are doing in supporting quacks and nostrums and giving testimonials to them. The members of these other professions cannot be expected to know the real truth about things medical and sanitary unless we teach them. It should be the duty of each county medical society to undertake this educational work.

The county society should also have a committee on publicity, and through this committee give articles to the local papers on subjects of general interest. The people should know, for instance, that it is to their own advantage to maintain good fees so that their physicians may study and equip themselves and thus be ready to give the best of medical attention. A poor doctor is a dangerous doctor, and if the people make the doctor poor, they are the ones who suffer.

If the county society meets often, undertakes and follows regular and systematic work, and does the various duties which have been outlined and which, heretofore, have been neglected, there will be much less time for personal fights and quarrels. What is needed to make a good county society is work, and this they should all arrange for and undertake.

Proprietary Association of America.

This is the organization of philanthropists and public benefactors, many of whom are good enough and have sufficient of the milk of human kindness in their hearts to furnish alcohol, cocain, morphine, etc., to man, woman or child who can be persuaded into self-dosing by lying advertisements. It held a meeting on December 4, 1905, and we are informed that some sixty members attended. Doubtless "Peruna," "Hostetter's Bitters," and others of the alcoholics were cheek by jowl with the deadly "soothing syrups" and "catarrh cures." It must have been a merry gathering, so near to the gladsome Christmas time, and doubtless the sixty odd philanthropists thought often of the homes they have—shall we say absorbed?—and the lives they have ruined in the regular course of their honest and ennobling occupations.

They passed some resolutions. The resolutions are absolutely astounding. Scarcely ever has this country seen an exhibition of greater or more coldly calculating sarcasm. Imagine these sellers of alcoholics and morphine or cocain nostrums objecting to doing the very things that support them! Imagine them trying to secure honest laws to honestly control the sale of cocain! But there is no use trying to discuss the matter longer; words are insufficient. Just read the resolutions. If it were not to weep, it would be to laugh.

Resolved, That this association thoroughly disapproves of any effort on the part of any person or firms, members of this association or not, to market as medicines any articles which are intended to be used as alcoholic beverages or in which the medication is insufficient to bring the preparation properly within the category of legitimate medicines.

Resolved, That the Legislative Committee be and is hereby instructed to earnestly advocate legislation which shall prevent the use of alcohol in proprietary medicines for internal use in excess of the amount necessary as a solvent and preservative.

Resolved, That the Legislative Committee be also instructed to continue its efforts in behalf of legislation for the strictest regulation of the sale of cocain and other narcotics and poisons or medicinal preparations containing the same.

Resolved, That this association urges upon its members the most careful scrutiny of the character of their advertising and of claims for the efficacy of their various prescriptions, avoiding all over statements.

THE MEDICAL NEWS.

It is with regret that we read the announcement that our old friend, *The Medical News*, is to pass out of the hands of the Messrs. Lea Brothers and Company into that of the A. R. Elliott Publishing Company on January 1, '06.

The attitude of the latter concern in the matter of nostrum advertising is well known and we believe thoroughly disapproved by the medical profession, and we doubt whether the *News* will ever do as well under the new management as it has done in the past.

The day of the privately owned weekly medical journal is passing away. Its place will be taken by the *Journal of the American Medical Association* and the various state journals.

Like the medical colleges of the present day, only the very best and the very worst can live. Mediocre medical institutions are not wanted, so the privately owned respectable journals are ceasing to pay as an investment. They are too expensively run to admit of their being sold for a dollar or two a year, and they are not sufficiently large and interesting to compete with the *Journal of the American Medical Association*.

Furthermore, the profession is awakening to the fact that all of these privately owned journals are managed primarily for the profit of their owners and secondarily for the true interests of the profession. Their circulation and influence are bound to decline, especially when published by a business house willing to defy and deride the movement, now so successfully launched, to purify the advertising columns of the national and state journals and to keep them pure.

The good will of the profession must be behind any journal, if it is to succeed, and we think that the management of the *New York Medical Journal* has forfeited this good will.—*Jnl. Med. Soc. of New Jersey.*

On the evening of Tuesday, December 26th, at the Grace Methodist Episcopal Church in this city, Dr. John Crockett Newton was married to Miss Frances May Sanborn.

As We Know It.

MODERN MEDICAL journalism, like any
acterized by certain distinct
mind as does a unique

New York Medical Journal

AND

Philadelphia Medical Journal.

Published by A. R. ELLIOTT PUBLISHING COMPANY, 66 West Broadway, New York. YEARLY SUBSCRIPTION, $5.00 SINGLE COPIES, TEN CENTS

VOL. LXXXI, No. 22 WHOLE No. 1583 A Weekly Review of Medicine, Established 1865

OUR READERS

are particularly invited to inspect the ADVERTISING PAGES.

We rigidly exclude all but legitimate Advertisements, accepting only those that directly apply to Medicine or Surgery, such as MEDICAL INSTITUTIONS, MEDICAL PREPARATIONS of recognized value, MEDICAL AND SURGICAL APPLIANCES, etc.

Physicians will find of value in their practice everything herein advertised, and a careful reading of the advertisements will amply repay them for the time thus spent.

...YORK
...ical profession,
...ions of the country, through a
...ligent and trained solicitors, maintains for
this Journal a live and ample circulation which ... for it

Fidelity

The fidelity of the management of the NEW YORK MEDICAL JOURNAL in its relation to the profession at large, in keeping clean both the advertising and the reading pages, provides a safeguard against just criticism from any source whatever.

Can Physicians or Advertisers, under these circumstances, afford to look lightly, upon the claims of a journal of this character?

An inquiry from you will receive our prompt and careful attention.

A. R. ELLIOTT PUBLISHING CO.

66 WEST BROADWAY, NEW YORK.

What it promises the medical profession. (Query: Is the "N. Y. Medical Journal" a "comic weekly?")

New York Medical Journal
and Philadelphia Medical Journal
CONSOLIDATED.
A Weekly Review of Medicine. Established 1865.

A. R. ELLIOTT PUBLISHING COMPANY.
66 West Broadway, NEW YORK.
NEW YORK, PHILADELPHIA, CHICAGO.

TELEPHONE CONNECTION.

New York, March 14, 1905.

[redacted]
Chicago, Ill.

Gentlemen:

Regarding the recent action of the American Medical Association we beg to say:-

Most sane persons are disposed to regard the personal property which their exertions have created as peculiarly their own; and any suggestion that they part with it would probably be treated with derision.

This seems, in essence, to be what the American Medical Association demands in its new rules about proprietary preparations. To comply with the new requirements would be to make your products common property. By furnishing the information demanded you would enable pirates to affirm that their spurious imitations were made in accordance with the published formulas of the association.

Refusal to be mandamused out of your property will result in the exclusion of your advertisement from the association's journal. Also it will exclude you from the proposed book of non-official remedies. Very many others will be excluded for the same reason, and the book consequently will be incomplete.

We therefore offer you space in the New York Medical Journal for a brief expression of your views on this important matter, and shall be very glad to hear from you at your earliest convenience.

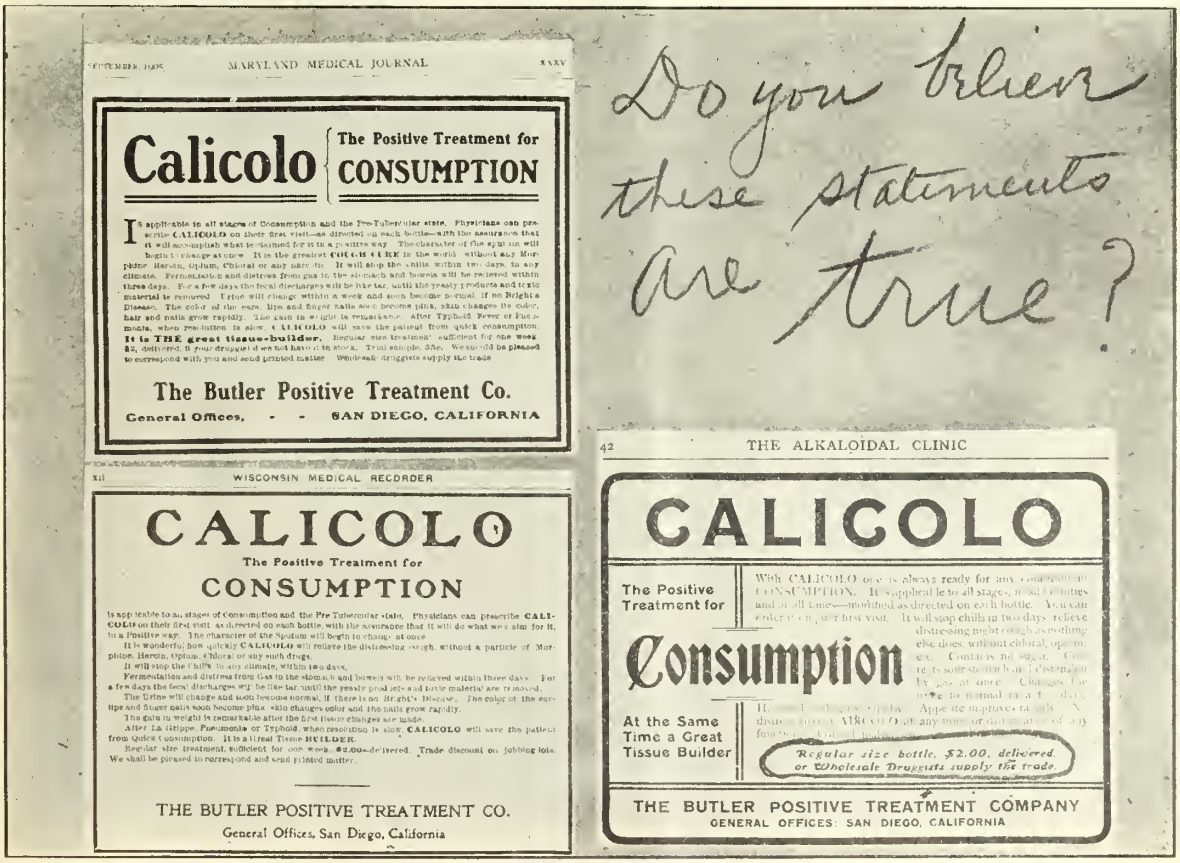
Very respectfully yours,

A. R. Elliott
President.

One of the "safeguards" provided for the medical profession by the A. R. Elliott Publishing Co., owners of the "N. Y. Medical Journal. (This cut has kindly been loaned to us by the "Journal A. M. A.")

SAN FRANCISCO CHRONICLE, SUNDAY, NOVEMBER 26, 1905
Miraculous Cure of Pneumonia
KEPT SECR
Duffy's Pure Malt Whiskey
THE TRUE TONIC STIMULANT
DUFFY'S PURE MALT WHISKEY
BE SURE TO SPECIFY DUFFY'S IN PRESCRIBING
SAMPLE BOTTLE SENT FREE TO PHYSICIANS ON REQUEST.
DUFFY MALT WHISKEY CO.
Dept. G. ROCHESTER, N. Y.

Some of the "legitimate" advertisements which the "N. Y. Medical Journal" thinks "Physicians will find of value in their practice."



A few compliments (?) to medical intelligence.

CAPSULES
of Cypridol do not salivate or produce dyspepsia and the emaciation which is inevitable with other mercurials. 1/32nd grain in each capsule.
Sold in Bottles of 50.

CYPRIDOL
A 1% SOLUTION OF MERCURIC IODIDE IN AN ASEPTIC OIL
IN
SYPHILIS

INJECTIONS
of Cypridol are vastly superior to all soluble or insoluble mercurials used hypodermically.
They are non-irritating and free from all untoward after effects.
Dispensed only in graduated tubes.
6 tubes in a box.

CEREVISINE
succeeds admirably in the treatment of furuncles, urticaria, acne and boils which promptly subside and disappear under its influence.

PURE DESICCATED YEAST
CEREVISINE
IN
SKIN DISEASES

CEREVISINE
Is indicated in cases o psoriasis, herpes and ec zema; its effects being associated with corresponding improvement the general health.

U. S. Agents, E. FOUGERA & CO., 26, 28, 30 N. William St., New York.

San Francisco Chronicle.
Published Daily at
CORNER MARKET, GEARY AND KEARNY STREETS
M. H. de YOUNG, Proprietor.

SATURDAY.....NOVEMBER 11, 1905

Santal-Midy
OL: SANTAL: FLAV: PUR: (MIDY)

The standard preparation of Sandalwood Oil, in 5 minim capsules. Superior to all commercial oils in the treatment of specific and non-specific Urethritis, Cystitis, Bronchitis, and wherever the properties of Sandal Oil are indicated in inflammatory conditions of the mucous membranes.

SANTAL CAPSULES MIDY
Relieves **Kidney & Bladder** troubles at once. **Cures in 48 Hours** all URINARY DISCHARGES
Each Capsule bears the name MIDY
Beware of useless counterfeits.

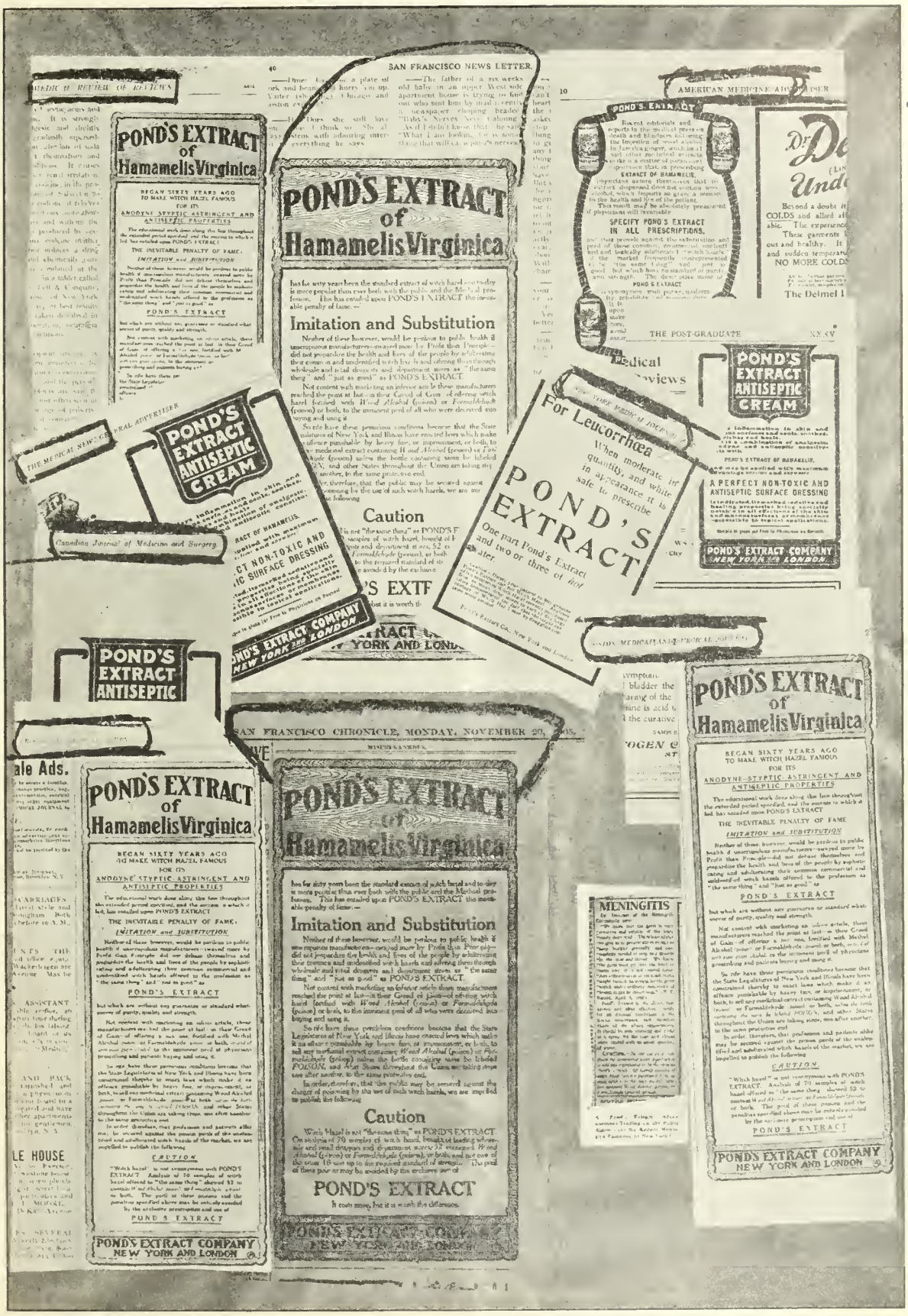
CHICHESTER'S ENGLISH
PENNYROYAL PILLS
Original and Only Genuine.
SAFE. Always reliable. Ladies, ask Druggist for CHICHESTER'S ENGLISH in RED and Gold metallic boxes, sealed with blue ribbon. Take no other. Refuse Dangerous Substitutions and Imitations. Buy of your Druggist, or send 4c. in stamps for Particulars, Testimonials and "Relief for Ladies," in letter, by return Mail. 10,000 Testimonials. Sold by all Druggists. Chichester Chemical Co. Mention this paper. Madison Square, PHILA., PA.

Santal-Midy
OL: SANTAL: FLAV: (MIDY)

NOTICE:
Physicians who have successfully used "Santal-Midy" in Catarrh of the Bladder, Cystitis and Urethritis for the last 12 years, are liable to lose faith in this most valuable drug, on account of the extensive substitution of cheaper brands of capsules, with which the market is flooded.

The standard oil distilled by Midy's process from a *certain* kind of Mysore sandal wood, is dispensed in 5 minims capsules bearing the name "Midy." This is a guarantee against the substitution of the commercial oil of sandal from Mysore, Timore, and Western Australia.

Is comment necessary?


POND'S EXTRACT of Hamamelis Virginica
POND'S EXTRACT ANTISEPTIC CREAM
POND'S EXTRACT ANTISEPTIC
POND'S EXTRACT
Imitation and Substitution
Caution
For Leucorrhœa
One part Pond's Extract and two or three of water
SAN FRANCISCO NEWS LETTER
SAN FRANCISCO CHRONICLE, MONDAY, NOVEMBER 20,
MENINGITIS
POND'S EXTRACT COMPANY NEW YORK AND LONDON

"About as useful as brick dust," yet commended to the attention of intelligent physicians.

Ethics! Ethics! What new crime may not be committed in thy name!

BOSTON MEDICAL LIBRARY APR 29 1906

HERZSTEIN LECTURES IN THE UNIVERSITY OF CALIFORNIA FOR 1905.

Special Chemical Problems Related to Practical Medicine.

Synopsis furnished to the JOURNAL by the Lecturer.

LECTURE III.

The Relation of the Nitrogenous and the Carbonous Metabolism in Disease.

By ALONZO ENGLEBERT TAYLOR.

The nitrogen metabolism (including the purin metabolism) may be defined as the metabolism of cellular regeneration. There is in the body cells a constant autolysis. New nuclear substance and protoplasm must be formed for new cells. Beyond the term of growth, the magnitude of these regenerations is quite independent of the activity of the life of the individual, and is related to the species. Apart from conditions of disease, a cell seems to last a certain length of time in each species. The velocity of autolysis and regeneration is very low in the cold-blooded animal and is apparently little less during hibernation than during the active state. If the diet of an animal be properly arranged, it will be found that severe and prolonged exertion is supported entirely by the carbonous metabolism; the nitrogenous metabolism is not increased. Heat is, of course, produced in the nitrogenous metabolism, but it is incidental and comprehends but a fraction of the heat production.

Beyond the metabolism of the cellular life, the endogenous metabolism, there is an exogenous nitrogenous metabolism, related to the excess of protein input over the cellular needs. The limitations and interrelations of these two have not been defined. There is in the purin metabolism also, an endogenous and an exogenous fraction.

The protein necessary to a normal diet may be set down as about one gramme per kilo weight. With a large body weight, the ratio will be disproportionately reduced, since further increase in weight will be largely fat and skeleton, and fatty tissue has small nitrogen needs. Since a body of 70 kilo will contain about 10-11 kilo of cellular material, one gramme of protein per day maintains the status of some 150-200 grammes of cells (calculated water-free). The nitrogen proportional to this protein ratio will appear in the urine daily in the form of end products of the protein catabolism. This output represents the reaction velocity of these cells.

The 150-200 grammes of cellular material has a uniform water content and represents a substrate concentration in a reacting system. The nitrogen output represents the transformation under constant conditions of work and stands for the constant. A corresponding amount of substrate added regularly to the system (in the form of the protein diet) will maintain the concentration of the substrate. The products of the reaction are removed from the body. We know that the transformation in a chemical system will be uniform in time if the products of the reaction be removed, the temperature held constant and the substrate concentration maintained by the regular addition of that amount of the substrate indicated by the constant. The accelerator for the reaction of hydrolysis may be assumed to be the intracellular proteolytic ferments, and these are assumed to be unvarying, since the transformation on a constant diet is uniform. It is not yet possible to apply the law of mass action to the details of the protein metabolism (for example, the substrate is not strictly the mass of the cells, but some relationship between the mass of the cells and the circulating protein), but in this point of view is represented unquestionably the dynamics of the process.

There is a great power of adaptation in this function. It is possible to cut down the protein input materially; it is possible to compel the body to maintain its heat and energy expenditure entirely from protein. It is possible in adaptable individuals to cut the protein ratio down to some 30 grammes of protein per day for a body of 70 kilo, though disproportionate amounts of carbohydrates will be needed in the diet. When the quotum of protein in the diet is normal, we need that amount of fat or sugar that will yield 25-35 Cal. of heat per kilo per day; when we cut the protein down one-half, we need a ratio of carbohydrate or fat sufficient to yield 40 Cal. per kilo per day. This indicates that when the repair of the cellular mass of the body is to be accomplished with the minimum of new material, these cells do not perform their functions of combustion as economically as in the normal.

When no food is taken except protein, the body will perform all its functions on this one material. A body of 70 kilo will require from 500-600 grammes of protein, ten times the amount needed for the repair of the cellular losses. There is evidence that when compelled to maintain the body heat by the combustion of protein, the cells work at a greater wear and tear than normally, and proportionately more than 1 gramme per kilo weight will be needed for their repair; therefore, somewhat more than the isodynamic amount of protein will be needed if all the functions are to be supported by it. There is also evidence that muscular contraction (work) is not maintained as economically by the combustion of protein as by that of sugar.

When to a mixed diet an excess of protein is added, the body resists an excess of circulating protein, so that all the excess is hydrolysed and the nitrogen output balances the input. Since this evolves heat, less of the carbonous substances of the body will be burned, and as the combustion of carbon is regulated by the heat needs and not by the material available, that will be spared and stored as glycogen and fat. The saving is not strictly isodynamic, since the oxidation processes on a heavy protein diet are excessive.

When an animal is starved, the protein catabolism is reduced to somewhere near the figure given as the normal minimum (½ gramme per kilo). The heat is first supported by the combustion of glycogen; later of fat. So long as the fat is abundant, we have the normal relations of protein and carbonous metabolism; when the fat has sunken appreciably, some body protein begins to be burned for heat, and this ratio increases progressively until at the close, when the fat is low, the temperature is maintained largely by the combustion of cellular protein.

When an animal is placed upon a protein diet, the body fat and carbohydrate retain their status quo. The blood sugar rests at a minimum, the glycogen of the body does not increase, the fat is unchanged, the metabolism of fat and sugar have become quiescent. Just how the protein molecule is burned, following its hydrolysis, is not known; it has been usually assumed that the carbonous groups would pass through the stage of sugar, but the direct combustion is theoretically possible. If the protein diet be excessive, it is all hydrolysed and burned, the carbonous as well as the nitrogenous portion. It has been assumed that under these conditions a part of the carbon of the excessive protein would be retained as fat or glycogen. Careful experimentation has thrown the gravest doubt upon this statement, although in occasional instances of forced experimentation small amounts of carbon are retained. The amount concerned is trivial and cannot be used to force an interpretation of the conditions under normal circumstances. Under physiological circumstances a derivation of carbohydrate from protein is improbable.

The carbonous metabolism maintains the body heat and is the basis of muscular energy. The incidental heat developed in the hydrolysis and oxidation of protein in the essential protein catabolism is not over 300 Calories per day. The two functions of combustion for body heat and muscular energy are in part reciprocal. When heat is produced in association with muscular work, that heat maintains the body temperature, with a consequent saving of other combustion. The functions are only in part reciprocal. All notable muscular exertion is associated with a heat production beyond the amount needed to maintain the body temperature, and the excess is dissipated. Within certain limits the processes for the combustion of carbohydrates and fat for the purposes of the maintenance of the body heat are a reflex function of the external temperature; the more rapidly the body loses heat, the more rapidly the process of combustion will operate, and when the loss is so rapid that the direct chemical processes, aided by the maximum available restriction of heat dissipation, cannot maintain the loss, heat will be furnished by the indirect method through muscular exercise, as by shivering. In the other direction, however, the influence is less strict. If we place a human body in a room with a body temperature, it might be conceived that, apart from the small amount of heat produced in the protein catabolism, the body would exhibit no combustions at all, since no heat is needed. This is not the case. There will be a reduction in the combustion of sugar and fat, but a certain amount of heat will be produced, although it is not needed. Higher temperatures are often accompanied by excessive combustions; thus a man in a Turkish or Russian bath will often actually burn up more carbonous substance while within the bath than under ordinary circumstances.

One gramme of fat yields about 9 Calories of heat, a gramme of sugar about 4.2 Calories. Now, in the body the combustion of sugar is more economical than in the case of fat, so that here sugar has, for the purposes of fuel, half the value of fat. To furnish the body heat, we need some 250 grammes of fat or 500 grammes of sugar. These are in the body practically isodynamic in all proportions. There is, however, a difference in their relations to the protein metabolism; sugar has a greater saving power for protein than fat.

Sugar is burned in the body indirectly. One of the great questions now pending is whether sugar is burned via alcohol as an intermediary product, analogous to the fermentation of sugar. When in excess in the body, sugar is converted into glycogen. When the glycogen storage reaches a certain point, sugar is converted into fat. How the fats are burned in the body we do not know. If they are burned directly, it is of importance to know whether this occurs by the successive splitting off of CH_2 groups, whether it is preceded by an intra-molecular cleavage or whether a fat is burned by direct oxidation, through oxy-acids. It is also possible that fats are not burned directly at all, but first converted into sugar. The easy formation of fat from sugar makes the reversion into sugar a chemical feasibility. In plants this reversion is a regular physiological act. That these combustions are to be interpreted as fermentations is certain.

There is between the carbonous and protein metabolisms one fundamental difference; their relation to the input. The magnitude of the exogenous catabolism of protein is a function of the input; combustion in the carbonous metabolism is a function of the body needs. The body needs only some 60 grammes of protein per day, but, no matter how much more is ingested, all the excess will be promptly hydrolysed and eliminated. Of fat and sugar the body will burn only so much as is needed for the body heat and for muscular exertion; if more than this amount be ingested, it will not be burned, but stored. The body invites an excess of carbon; it repels an excess of nitrogen. The body stores the carbon for future heat and work; it will not store the nitrogen for future regeneration of cells. That a small retention of protein can be accomplished is true, but so soon as the diet is returned to the normal, the excess retained will be hydrolysed. This distinction is fundamental, and of the greatest physiological and practical importance. It means chemically that in the case of protein the retained excess adds to the substrate concentration, is active in the sense of the mass law; the body possesses no power to store it in some inactive form. In the case of fat and sugar the excess retained is stored in an inactive form, so that the substrate concentration is not increased. Sugar is the active state of carbohydrate, glycogen is the storage state, a soluble fat-complex is the active state of the fat, neutral fat is the storage state.

Variations in Conditions of Disease. The difficulties that attend the reduction of obesity and the fattening of a naturally emaciated individual have given the impression that the fat person subsists on less food and the thin person requires more food than the normal. Assuming that in each instance the factor of digestion and assimilation is normal, are there persons whose body needs are appreciably greater or less than the normal? Is there such a thing as a retardation of metabolism as a type, a constitutional entity that is expressed in a reduction of the unit-metabolism? The bear has a different unit of metabolism when active and hibernating. Such a constitutional retardation as postulated by Bouchard would resemble the hibernating metabolism as against the active metabolism. Is there such a thing as a constitutional type of excessive metabolism? There are here many individual variations. These variations are much less marked for the nitrogenous than for the carbonous metabolism. Apart from disease, the protein needs of the bodies of different individuals display small variations. The individual variations in the carbonous metabolism are normally very great, as is to be expected from the number of adventitious variables. The following factors must be considered: (a) The relation of body-weight to surface dimensions (the dimensions of heat radiation) are different for different individuals. (b) The variations in the physical modes of heat dissipation are different, depending on the pigmentation and the thickness of the skin, the vaso-motor tone of the cutaneous vessels, the number and activity of the sweat glands and the covering of body hair, etc. (c) The efficiency of involuntary muscular exertions is different in different individuals; the work of circulation, respiration, vaso-motor control and peristalsis vary greatly with different persons. (d) The digestion is not a constant factor, individuals losing more or less carbon from the diet by alimentary fermentation, and this cannot be measured or controlled. (e) The work of the secretion of the digestive juices and the work of assimilation is different in different persons. All digestion is accompanied by excessive oxidation that is more marked for the digestion of protein than for that of fat and starch. This is variable, and this simply means that different persons accomplish the work of a unit of digestion more or less economically, just as different amounts of energy are required to carry different persons over a mile of running, depending on their economy of motion, which is an individual variation. (f) The oxygen input cannot be strictly controlled, some is lost in the intestinal gases, some from the skin, while some of the oxygen utilized in combustions comes from water and not from the atmosphere; therefore, an error is attached to all estimations of oxygen-input and carbon-dioxide-output. (g) The involuntary use of the voluntary muscles is different in different persons, an observation that is clearly noted in the phlegmatic and the nervous

This is unquestionably a factor of great influence. Now, sleep is an inconstant factor. Sleep is, however, on account of the muscular rest, attended by a saving in oxidation as against the waking hour. (h) The muscular habitus is of great influence. No two persons walk or run a mile with the same expenditure of energy. (i) The Calorie-kilo ratio will not be the same in the thin and fat, because of the thermic indifference of the fat, it be much lower in the obese. These numerous factors result in variations in the heat-unit per kilo per day ranging from 20 to 35 Calories. Following disease and during convalescence from emaciation, the figure is low. The findings in myxodema and following castration also fall within these factors. The relations in every case of obesity and in every case of emaciation (not due to disease) that has been studied by proper methods, with the above-named factors controlled or recognized, has led to negative results. All the properly studied cases have yielded results within the limits of the normal. No data exists, therefore, tending to show that there is a constitutional obesity or emaciation depending upon a retardation or acceleration of the carbonous metabolism. It is equally certain that no data exists tending to show that such a thing as a retardation of the protein metabolism occurs.

The incompletion of an act of nitrogenous or carbonous metabolism is known to occur under several circumstances. It is probable that future investigations will demonstrate that incompletions in the intermediary metabolism lie at the basis of many conditions now assumed to be intoxications solely on the basis of symptomatic analogy. The end-products of metabolism are quite free of toxic properties and we are thus compelled to revert to the intermediate metabolism for the chemical agents of systemic auto-intoxications. Several of these are known in the chemical sense, though in but one instance is a clinical entity connected therewith. If an excess of tyrosin be formed in the body, the liver will be unable to oxidize it all and a part of the substance will appear unchanged in the urine. In the alcaptonuric individual, however, a qualitative variation is observed in that the substance appears in the form of di-oxy-phenyl-acetic acid, which is normally an intermediary stage in the oxidation of tyrosin to di-oxyphenyl-a-oxy-proprionic acid. When the portal blood is deflected from the liver through an Eck fistula the ammonium salts, instead of being converted into urea, are eliminated in part unchanged. Idiopathic cystinuria presents another illustration of an incompleted act of protein metabolism, though here a new substance is produced. Normally we have the b-cysteiu in the body converted into taurin by the splitting off of one molecule of CO_2; in the cystinuria this reduction does not occur, but instead two molecules of the b-cystein are condensed to form cystin, which is eliminated in the urine. For the fat metabolism we are able to cite an instance of incompleted metabolism that is the cause of an intoxication. The normal urine contains a trace of acetone derived by reduction of diacetic acid, which is in turn derived by oxidation from b-oxy-butyric acid. An excess of fat in the diet is followed by an increase in the elimination of acetone. We may infer, therefore, that normally the oxidation of fat passes through the stage of b-oxy-butyric acid, of which a trace appears as acetone. In diabetes and other conditions, large quantities of diacetic and beta-oxybutyric acid appear in the urine, and the withdrawal of the body cations that results from the elimination of these acids is associated with the intoxication of diabetic coma. This is the only known auto-intoxication, of which the chemical agent has been demonstrated.

Instead of the normal end-products of metabolism, abnormal products might be formed. A probable illustration of this fact is seen in idiopathic ptomainuria. In certain individuals, some of them with idiopathic cystinuria, cadavarin and putrescin are regular constituents of the urine. Lysin and ornithin are normally formed in the course of metabolic protein hydrolysis (the ornithin being derived from the fermentative hydrolysis of arginine) and are finally converted into urea. It has been shown, however, that from the fermentation of lysin and ornithin, cadaverin and prutrescin may be derived, and in these cases they are in all probability so derived.

The hydrolysis of protein and the combustion of sugar and fat may under pathological conditions be increased. For the protein metabolism this may be interpreted to mean either an exaggeration of the normal autolysis, or the formation of an excess of the intercellular proteolytic ferments. For the carbonous metabolism it means that the normal law, that the combustion of these substances is related solely to the heat needs and the muscular exertions, is transgressed. This transgression may be attributed either to an excess of the glucolytic ferment, to the abnormal reversion of glycogen into sugar, or to the abnormal conversion of insoluble into soluble fat.

Fever per se tends to exaggerate the protein catabolism; the exaggeration is not marked, it may be absent. The febrile infections also tend to this result. This is a varying factor. Sometimes one sees the nitrogen balance undisturbed through a long febrile infection, if the powers of digestion have been good. In other instances the exaggeration of the protein catabolism is extreme. Usually in these infections the combustion of sugar and fat is much less exaggerated (it may be normal), so that the end result often is that the body of the convalescent is poorer in cellular protein than before illness, and relatively richer in fat. In these diseases the saving power of sugar for protein is lessened, just as in the minimal protein diet; one can reduce the nitrogen loss by the ingestion of large amounts of sugar or fat, but far more than the isodynamic amounts are necessary. In the convalescence from the infections in which the exaggeration of the protein catabolism has been marked, we observe one of the best-known instances of metabolic economy. Such a convalescent individual will retain nitrogen—that is, build cellular protoplasm—on a nitrogen input that would be scarcely sufficient in the same individual in health to maintain a balance. And such an individual will similarly lay on fat on a diet that normally would be scarcely enough to maintain his body heat. Under these circumstances every variable factor in the carbonous metabolism is operative in the direction of efficiency.

In exopthalmic goitre the protein catabolism may be much exaggerated, and forced feeding with protein may be unable to attain a balance. Whether this is a primary result of the thyroid disease, due to an excess of a hypothetical zymo-excitor, or whether it is secondary to the disturbed carbonous metabolism is not known. In diabetes, where a similar exaggeration is to be noted, the condition is quite certainly secondary to the disturbances in sugar combustion.

In pernicious anemia and leukemia, and during the progressive stages of malignant disease, rather marked exaggeration of the protein catabolism is observed. It is to be noted in many exogenous intoxications such as poisoning with phosphorus, chloroform and arsenic. For all of these it is probable that the exaggeration is due simply to an increase in the cellular autolysis of the body, and the disintegrated protoplasmic protein is, like any other excess of circulating protein, hydrolysed and burned.

An exaggeration of the carbonous metabolism probably occurs to some extent in most fevers. While disturbances in heat dissipation are the most potent factors in the production of fever, there is in most febrile conditions associated with bacterial infections some excess of heat formation. A very marked exaggeration in the combustions occurs in exopthalmic

goitre. In some of the well reported instances of this disease the ingestion of over 60 Cal. per kilo per day (double the normal amount), was not sufficient to maintain the combustions without the loss of body fat. This is a positive exaggeration, due to a positive stimulation of the reactions of combustion, and not the result of an exaggerated heat dissipation. A marked exaggeration in the combustion of fat occurs in diabetes, as a compensation to the almost complete cessation in the combustion of sugar. A moderate excess of combustion has been observed in some case of pernicious anemia and leukemia, as well as in the cachexia of malignant disease. For most other diseases there have been no investigations.

It is apparently a rule that when either the carbonons or the nitrogenous catabolism is exaggerated, the reciprocal efficiency of the other is lowered, an excess of protein in the diet will not reduce the carbon combustions as in the normal, an excess of sugar or fat will not spare protein as in the normal. Just the opposite of this is to be observed during convalescence from disease (and insubnutrition), here the saving power of carbohydrate for protein and the reciprocal availability of protein for sugar and fat are increased.

THE SPIROCHETA PALLIDA.*

By SANFORD BLUM, M. D., San Francisco.

THE spirocheta pallida was first recognized by Schaudin in a smear preparation obtained from a secondary syphilitic papule in March, 1905. The preparation was examined fresh and the spirocheta was first observed in its motile state. Subsequently Schaudin and Hoffmann succeeded in staining the organism and studied it also in the colored preparation. Since then various investigators have studied this interesting organism and valuable information has been contributed by Lowenthal, Metchinkoff and Roux, Buschka and Fisher and others.

Up to the present time the spirocheta pallida has been found in syphilitic subjects in the discharge from eroded primary and secondary lesions, in the deep unexposed portions of primary and secondary lesions, in smears obtained from extirpated luetic inguinal glands and from the sap obtained from luetic inguinal glands by aspiration, in deep tissue smears from isolated intact papules, in the fluid contained in pemphigus vesicles in a child congenitally luetic, in smears from the liver and spleen of a child dying from hereditary lues, and perhaps in the blood taken from the finger of a luetic individual. It has not been found except in luetic cases.

Morphologically the spirocheta pallida is a small, delicate, corkscrew-like spiral with tapering ends. It varies in length from 3 mu to 14 mu and its thickness may be estimated at ¼ mu. Each spirocheta has from 3 to 14 twists or coils. It is extremely faintly refractive and takes stains with difficulty. In life it moves rapidly by a rotary motion in the direction of its long axis. First it moves in one direction; then comes to a standstill and then moves in the opposite direction. Schaudin describes other movements which it executes without locomotion, which he ascribes to an expression of the play of an undulating membrane. These are undulatory motions involving the entire structure.

In life the spirocheta pallida differs from other spirocheta in its smallness, delicacy and much fainter refraction of light, and especially in the nature of its coils. These can best be described as corkscrew-like. They are regular, narrow and deeply bent and these characteristics are constant, whatever the source of the individual specimen may be (primary lesion, gland, papule, monkey, etc.). They have the same configuration in the stained as in fresh preparations and it may be added that they stain faintly. They do not take most of the ordinary stains and when they stain they do so more faiutly than the other spirochetæ.

The technic of staining as given by Hoffman is as follows:

(1) Make a thin smear and dry in the air; (2) fix the preparation in absolute alcohol (preferably without delay); (3) dry, and stain with Giemsa's mixture. (Hoffmann uses Grübler's preparation. Of this 10-15 drops are added to 10cc distilled water. In this the preparation is stained for an hour in a porcelain dish.); (4) dry in the air and affix to slide with cedar oil or Canada balsam.

Gonder and Hoffmann succeeded in staining with fuchsin and Anilin water gentian violet.

Schaudin believes that the spirocheta family differs from the spirillum family in that the spirocheta are protozoa, while the spirilla are bacteria. He differentiates the spirocheta pallida from the other spirocheta—sp. refringens; sp. balanoposthitis; sp. erosiva circinata; sp. buccalis; sp. angina Vincenti; Anserina, Chicken, and Obermeieri—by their smallness, their greater delicacy, the nature of their spirals, their much feebler refractibility and the difficulty with which they take stains.

Microphotograph showing the delicate spirocheta pallida and also the coarser spirocheta refringens

The cases in which Schaudin and Hoffmann found the spirocheta pallida were recent cases—4½ to 5 months old. In one instance Hoffmann found the spirocheta pallida in the blood obtained by puncturing the spleen of a man with recent lues a day before the roseola appeared. Drs. Buschka and Fisher found it in the spleen of a child dying from hereditary lues. It has also been reported as found in blood taken from the finger of a luetic individual. Schaudin found it in the pemphigus vesicles, liver and spleeen of a child afflicted with hereditary syphilis. Metchnikoff and Roux found it in the primary lesions of inoculated monkeys.

The work of Lowenthal is important. He found 9 intracelilular spirocheta in one cell in the deep tissues

*A resume of investigations to date, with demonstration of specimen, before the California Academy of Medicine, August 1905

of a primary lesion. Also he found spirocheta in two cases in papules, isolated, intact and distant from the genital organs (in one case in a papule over the deltoid muscle). He believes the length of individual organisms is only 3 or 4 mu and that the reported long examples are really several individuals placed end to end. He also believes that mercury makes them shorter and, whereas Schaudin and Hoffmann found them only in untreated cases, he found them in cases where mercury had been used.

L. Michaelis believes that he has seen nuclei in spirochetæ pallidæ.

Note—The microphotograph was obtained from a smear preparation of the discharge from a moist papule in a case of fresh lues. It shows the frail, delicate spirocheta pallida, as well as the decidedly coarser spirocheta refringens. Magnification 1900.

THE RELATION OF BACTERIA TO THE DEVELOPMENT OF GALL-STONES—A REPORT OF EXPERIMENTAL STUDIES, WITH A REVIEW OF THE LITERATURE.*

By AUGUST JEROME LARTIGAU, San Francisco.

THE results of recent experimental studies upon the relation of bacteria to the formation of gall-stones have been sufficiently striking to justify newer points of view of the pathogenesis of this disease. It is now definitely known that the phenomena involved in the development of cholelithiasis are closely related to bacterial infection of the gall-bladder. However, the idea that the lesion is one dependent on local changes in the gall-bladder is not new. Indeed, in 1845, Budd suggested that the cholesterin of gall-stones might be derived from the mucous membrane of the gall-bladder; and later, Meckel von Hemsbach, in his well-known work on lithogenic catarrh, pointed out that inflammatory changes within the gall-bladder, were more or less closely associated with the formation of calculi. The increased secretion of mucus and the desquamation of epithelial cells were, to his mind, important factors in the etiology.

In 1886 Galippe[1] demonstrated the presence of micro-organisms in salivary calculi; from this observation he advanced the theory that bacteria were the essential factors in the pathogenesis of all forms of lithiasis. Five years later, at the Congress of Wiesbaden, Naunyn,[2] partly from the studies of others and partly from his own observations, strongly supported the bacterial conception of cholelithiasis.

Dupré,[3] in 1891, studied the subject of biliary infections and noted the frequent occurrence of bacteria in connection with gall-stones; from this he drew the conclusion that calculi predisposed to biliary infection. Letienne,[4] on the other hand, from more or less similar investigations, reached the conclusion that the growth of bacteria within the gall-bladder does not necessarily give rise to clinical symptoms, although it may produce a precipitation of bile elements. He did not accept the view advanced by Galippe.

The Experimental Development of Gall-Stones.—At first glance it is surprising that at this time, so few observers recognized the significance of Galippe's findings. This is in part accounted for by the fact that bile was generally regarded as a secretion which possessed marked germicidal properties. But Charrin and Roger,[5] Copeman and Winston,[6] Corrado,[7] and a host of others showed that bile exerted scarcely any appreciable effect on the growth of bacteria. Furthermore, as the bacterial etiology of cholecystitis was developed by the investigations of Gilbert and Dominici[8] and many others, and as the demonstration of bacteria was frequently made within gall-stones or the gall-bladders containing them, by the studies of Welch,[9] Dupré,[10] Letienne,[11] Gilbert and Dominici,[12] and Gilbert and Fournier,[13] the theory of the casual relationship of bacteria to cholelithiasis came more prominently into the foreground, and has gradually been developed by several investigators, who have induced the formation of calculi in animals. Gilbert and Dominici[14] state that they had observed in 1893 the presence of "petites concrétions vérdatres" in a case of experimental typhoid cholecystitis. Following this observation, systematic attempts were made to obtain gall-stones experimentally. Thus, Fournier[15] made a series of studies with this object in view, but was unsuccessful. Later, in January, 1897, Gilbert,[16] with Fournier, obtained a stone from the gall-bladder of a dog which had been previously inoculated with the bacillus coli communis.*

The first comprehensive experimental work along these lines was undertaken by Mignot, who communicated the first results[17] of his investigations to the French Society of Surgery, Paris, in May, 1897.

He showed several stones obtained in guinea pigs by direct inoculations of the bacillus coli communis into the gall-bladder. In the following year,[18] he published the results of his more extended studies. By the direct inoculation of various bacteria—bacillus coli communis, bacillus typhosus, bacillus subtilis, staphylococcus and streptococcus—into the gall-bladder of animals, calculi were obtained. He especially insisted upon the fact that for the experimental development of gall-stones it is essential that the organisms be of attenuated virulence.

It was formerly thought that foreign bodies played an important role in the formation of calculi. Very often in the center of gall-stones masses of epithelial cells and bacteria are found; less often blood clots, worms, needles, globules of mercury, plum stones, or suture material, as in the cases reported by Homans and Kehr.

Mignot, therefore, studied the significance of inert foreign bodies in the formation of stones. He introduced into the gall-bladder sterile silk thread, bits of cotton, and hard substances, such as fragments of human calculi. So long as the gall-bladder remained free from bacterial inflammation no stones were formed. Then, to show that the negative results obtained were not due to an absence of bile stagnation,

[1] Galippe: Mode de formation du tartre et des calculs salivaires: considérations sur la production des calculs en général; presence des microbes, ou de leurs germes dans ces concrétions. Journ. des Connaissances Médicales, March 25, 1886; Bull. de la Soc. de Biologie, 1886; Journ. des Connaissances Médicales, 1894, p. 151.

[2] Naunyn: Die Gallensteinkrankheiten. Tenth Congress for Internal Medicine, Wiesbaden, 1891; Verhandlungen des Congresses fur Innere Medicin, Leipzig, 1892.

[3] Dupré: Les infections biliare. Thèse de Paris, 1891.

[4] Letienne: De la bile a l'état pathologique. Thèse de Paris, 1891.

[5] Charrin and Roger: Note sur l'action antiseptique de la bile. Bull. de la Soc. de Biologie, Aug. 7, 1886.

[6] Copeman and Winston: Observations on Human Bile Obtained rom a Case of Biliary Fistula. Jour. of Physiology, 1889.

[7] Corrado: Sul passagio dei germi nella bile et nel contenuto enterico e sull'azione che resontono. Ann. del Instituto d'hygiene Sperimento del Prof. Celli, 1890.

[8] Gilbert and Dominici: Angiocholite et cholécystites typhiques expérimentales. Bull. de la Soc. de Biologie, Dec 23, 1893; Angiocholite et cholécystite cholériques expérimentales. Ibid. Jan. 13, 1894; Angiocholite et cholécystite colibacillaires expérimentales Ibid. Jan. 20, 1894; Sur l'infection expérimentale des voies biliares par le stréptocoque, le staphylocoque doré, et le pneumocoque. Ibid. Feb. 24, 1894.

[9] Welch: The Bacillus Coli Communis: the conditions of its invasion of the human body and its pathogenic properties. Med. News, vol. LIX, 1891.

[10] Dupré: Loc. cit.

[11] Letienne: Loc. cit.

[12] Gilbert and Dominici: La lithiase biliare ést-elle de nature microbiennes? Bull de la Soc. de Biologie, June 16, 1894.

[13] Gilbert and Fournier: Du role des microbes dans la genèse des calculs biliares. Bull. de la Soc. de Biologie, Feb. 8, 1896.

[14] Gilbert and Dominici: Loc. cit.

[15] Fournier: L'origine microbienne de la lithiase biliare. Thèse de Paris, 1896.

[16] Gilbert: Note pour servir a l'historie de la théorie microbienne de la lithiase biliare. Arch. Gén. de Méd., vol. II, Sept. 1898.

[17] Mignot: Calculs biliares expérimentaux. Soc. de Chirurgie, May 10, 1897.

[18] Mignot: L'origine microbienne des calculs biliares. Arch. Gén. de Méd., vol. II, 1898.

* Read at the Thirty-fifth Annual Meeting of the State Society, Riverside, April 1905.

* Although published after Mignot's communication, Gilbert and Fournier were probably the first to experimentally obtain gall-stones.

several experiments were made in which foreign bodies were introduced into the gall-bladder, and at the same time, the outflow of bile was partially impeded. But even under these circumstances the formation of calculi was not observed. Moreover, he found that in these experiments there was not any evidence of cholecystitis, as is usual when stones are present.

From these and other experiments, Mignot reached the following conclusions: First, that the presence of aseptic foreign bodies in the gall-bladder does not induce inflammation nor the precipitation of cholesterin; second, that the presence within the gall-bladder of various bacteria with or without foreign bodies may give rise to more or less inflammation and to the development of calculi. Bacteria of attenuated virulence are necessary factors in the production of experimental cholelithiasis; third, any condition which produces stagnation of bile, favors in the presence of chronic cholecystitis, the development of gall-stones.

Richardson[19] in 1899 published the results of experiments by which a stone 7 mm. in diameter was obtained by injecting a culture of agglutinated typhoid bacilli into the gall-bladder of a rabbit. Cushing,[20] in the same year, also published a paper in which he states that he had observed in two rabbits the formation of two biliary calculi about two and three months respectively, after intravenous inoculation with the bacillus typhosus.

Miyake[21] likewise obtained calculi with the typhoid and colon bacilli, while Mieczkowski[22] obtained them with the streptococcus pyogenes and the staphylococcus pyogenes aureus. Italia,[23] a little later, partly went over the work of Mignot and confirmed his chief conclusions.

*Studies by the Author.**—More recently the author restudied the relation of bacteria to the development of gall-stones, in part repeating the work of Mignot and others.

The first step in the investigation consisted of experiments to ascertain the role of foreign bodies in the pathogenesis of cholelithiasis. Seventeen experiments were made in which sterile bodies, such as cotton, fragments of human calculi, grains of wheat, and silk thread were introduced into the gall-bladder under as aseptic conditions as possible in work of this kind. In four of these, cotton was inserted into the lower portion of the gall-bladder, near the cystic duct; in four others the cystic duct was lightly constricted, so that in all eight the outflow of bile was partially obstructed. Fifteen of the seventeen experiments are available for consideration, for two of the animals died within one week after the operation. The remainder lived from two to eleven months, when they either died from various causes or were killed. Neither gall-stones nor cholecystitis were found in any of these animals.

These results are in agreement with those of Mignot and others who found that inert foreign bodies do not induce the formation of calculi. Several years ago Naunyn[24] found that small particles of cholesterin and bilirubin-calcium placed in the gall-bladder of dogs after ligation of the cystic duct were absorbed in the course of a few months without the production of stones. Meyer[25] obtained similar negative results by introducing small hollow balls of ivory and clay. At the end of one year there were no calculi, although a small amount of sediment was present.

[19] Richardson: On the Role of Bacteria in the Formation of Gall Stones. Journ. of the Boston Soc. of Med. Sci., vol. III, 1899.

[20] Cushing: Observations upon the Origin of Gall-Bladder Infections and Upon the Experimental Formation of Gall-Stones. Johns Hopkins Hospital Bull., vol. X, 1899.

[21] Miyake: Zur Experimentellen Erzengung der Gallensteine mit besonderer Bercksichtigung des Bakteriellen Verhaltens der Gallenwege. Mittheil. a. d. Grenzgebiet. d. Med. u. Chir., Bh. VI, 1900.

[22] Mieczkowski: Zur Bakteriologie des Gallen-blasen in haltes unter normalen Bedingungen und bei der Cholelithiasis. Ibid.

[23] Italia: Batteri della Calculosi Biliare Coltivati nella Bile. La Riforma Medica, vol. II, 1901.

[24] Naunyn: Loc. cit.

[25] Jaques Meyer: Experimentelle Beitrage zur Frage der Gallensteinbildung. Virchow's Arch., Bd., CXXXVI, 1894.

* These experiments were conducted during the years 1901-1902, and the results were reported before the American Association of Pathologists and Bacteriologists, March 29, 1902.

The next step in the investigation was the study of the effects of direct inoculations into the gall bladders of rabbits with the bacillus typhosus, bacillus coli communis, bacillus pyocyaneus, staphylococcus pyogenes aureus, streptococcus pyogenes, and a variety of the hog cholera bacillus. Since the researches of Gilbert, Dominici, Mignot and others show that the injection of virulent bacteria into the gall-bladder usually induces acute inflammation, often fatal within a short time, the author used cultures of attenuated virulence only.

Previous cultivation of the bacteria in bile for several weeks has been advised, as this procedure seemingly facilitates their adaptation to the normal bile, and aids them in gaining a permanent foothold in the gall-bladder. We did not find this necessary.

Thirty-three experiments were made exclusive of those done earlier on some animals merely used for the purpose of becoming familiar with the necessary technical procedures. Large rabbits were selected, and after removing the hair and cleaning the field of operation, the peritoneal cavity was opened in the region of the gall-bladder. The latter was then opened at the fundus and, after introducing material, the incision was closed with very fine catgut with the

(a) Experimental Gall Stones

peritoneal surfaces in apposition. All the experiments were conducted under as aseptic conditions as possible.

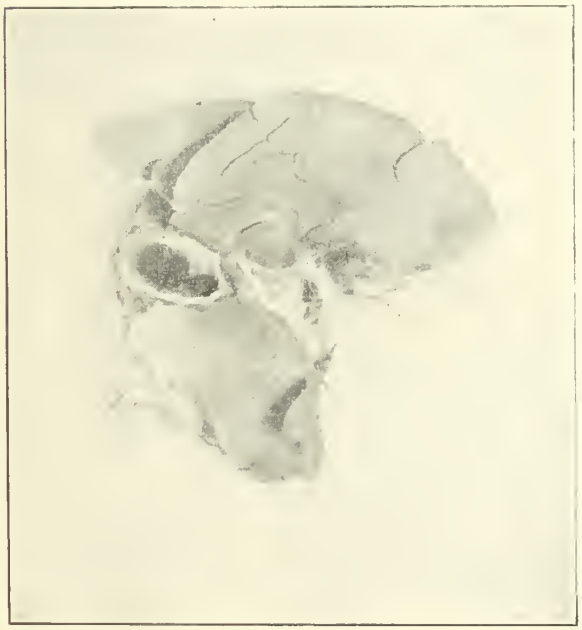
Eight of these experiments consisted in introducing the bacillus pyocyaneus without foreign bodies or any attempt to interfere with the normal outflow of bile. The bacteria were well rubbed upon the mucosa, which procedure, of course, injured to some extent the lining membrane. One of the animals died within one week from some undetermined cause. Four of the seven animals showed gall-stones when autopsied at periods varying from two to seven and one-half months after the operation. Neither gall-stones nor the micro-organisms originally introduced were found in the other three. The gall-bladders containing calculi, on the other hand, contained the bacillus pyocyaneus, in one case associated with the colon bacillus.

Nine other experiments were conducted in a similar manner to the above eight, differing from them, however, in interfering with the outflow of bile by placing small pieces of cotton at the neck of the gall-bladder. The bacillus pyocyaneus was used The

animals were autopsied from three to ten months after operation. All except one showed stones. The bacillus pyocyaneus was recovered from the gall-bladders of five of the animals.

The remaining sixteen experiments consisted in introducing living bacteria (all the varieties mentioned) and sterile foreign bodies, such as bits of cotton, silk thread, small pieces of sponge and fragments of gall-stones into the gall-bladder. Only eleven of these experiments are available for consideration, since five of the animals died within three weeks after the operation. These eleven animals were either killed or died from various causes in from six weeks to fourteen months. All showed stones, with the exception of two which were killed after six and seven months, respectively.

Although the number of our own experiments is small, we, with Mignot,[26] Miyake,[27] Ehret and Stolz[28] are convinced that any condition which produces stagnation of the bile in the gall-bladder favors, in the presence of bacterial infection, the development of cholelithiasis. But we are unable to say that one organism favors the formation of calculi more than another, nor that certain bacteria give rise to calculi earlier than others. The stones obtained resembled one another to the naked eye more or less closely. They ranged in size from 1 mm. to 8 mm. The



(b) Experimental Gall-Stones.

larger stones were found in animals infected over six months; on the other hand, some of the smaller stones were found in these animals, in some instances considerably smaller than those found in animals infected for shorter periods. Multiple stones were the rule, single ones the exception. We were not able to determine the factors which in one case gave rise to large stones and in another to small ones, although it is possible that the amount of secretion and epithelial desquamation bears an important relation to this.

The larger stones presented a stratified arrangement. Most of them were quite hard and deeply pigmented, while those from the more recently infected animals were softer. Chemical examinations were not made.

The minimum period of time required for the development of experimental biliary calculi was not especially studied. We found in one animal six weeks after inoculation, a stone about 4 mm. in diameter. Ordinarily, it probably takes from three to six months for the development of stratified stones.

The gall-bladders in which calculi were found almost invariably showed more or less thickening of the walls, and the bile was usually thin and much less pigmented than normal. Microscopic examination of the bile in these cases showed usually considerable cellular detritus. The reaction was not determined. In this connection it may be pointed out that very carefully conducted experiments by Dunham[29] on the influence of the typhoid and colon bacilli on diluted human bile indicated that even a very considerable growth of these organisms after many days occasions only a slight change in reaction, in the direction of acidity. It is to the acidity of the bile that Italia attributes the precipitation of cholesterin, but in the light of Dunham's observations this may be regarded as too slight to be of any great importance.*

In another series of ten experiments the effect of mixed infections of the gall-bladder was studied, using the bacillus coli communis and bacillus pyocyaneus, and the bacillus typhosus and bacillus pyocyaneus together. From a comparison of the results obtained it is impossible to say that mixed infections favor earlier development of stones than single ones, although Mieczkowski,[30] as the result of a few experiments, believes that they do.

Finally, a series of twelve experiments were undertaken to ascertain whether or not the development of gall-stones would follow the introduction of sterilized masses of bacteria, or the application of thermic or chemic irritants. The outflow of bile was partially impeded. All the experiments were negative. This agrees with the results of Miyake.[31]

The mode of action of micro-organisms in the pathogenesis of gall-stones is imperfectly understood. It is known, however, that local alterations in the gall-bladder involving the shedding of epithelium furnish rich sources of cholesterin and bilirubin-calcium. The conditions in chronic cholecystitis, in which there is proliferation, desquamation and degeneration of the epithelial cells, are, therefore, particularly favorable.

Cushing[32] has called attention to the fact that in typhoid fever there may be an active agglutination serum-reaction toward both the colon and typhoid bacilli isolated from the gall-bladder. The bile may share the agglutinative properties of the serum, as suggested by the observations of Richardson,[33] who examined at autopsy the bile of cases of typhoid fever and found large clumps of bacilli in five out of six. It is possible that bacilli agglutinated in large clumps are more likely to form the nidus for stones than smaller ones or individual bacteria.

The Channels of Infection in Cholecystitis.—It has been assumed by most writers, including Miyake, and Ehret and Stolz, that infection of the gall-bladder takes place through the common duct from the intestine in a direction opposed to the bile current. This view has been so generally accepted since the experimental studies of Gilbert, Girode, Fournier, Dominici and others on the ascending forms of cholecystitis, that infection from the general circulation or from the intestine by way of the portal circulation has, until recently, been scarcely considered by writers on the subject.

The passage of bacteria into the common duct from the intestine seems, at first sight, the most important and natural portal of entry for cystic infection. In

[26] Mignot: Loc. cit.
[27] Miyake: Loc. cit.
[28] Ehret and Stolz: Experimentelle Beitrage zur Lehre v. der Chtelithiasis. Mittheil. a. d. Grenzgebiet. d. Med. u. Chir., Bd., VI, VII, 1900.

[29] Dunham: Foot-note to Herter's article: The Medical and Surgical Aspects of the Diseases of the Gall-Bladder and Bile-Ducts Trans. of the Congress of Amer. Phys. and Surgeons, vol. VI, 1903, p. 180.
[30] Mieczkowski: Loc. cit.
[31] Miyake: Loc. cit.
[32] Cushing: Typhoid Cholecystitis and Cholelithiasis. Report of a Case without previous History of Typhoid Fever, and a Discussion of a Possible Relation to Stone-Formation. Bull. Johns Hopkins Hospital, vol. IX, 1898.
[33] Richardson: On the Role of Bacteria in the Formation of Gall-Stones. Journ. of the Boston Soc. of Med. Sci., vol. III, 1899.

* For a discussion of the chemical pathology of cholelithiasis consult the article by Herter, Trans. of the Congress of Amer. Phys. and Surgeons, vol. VI, 1903.

duodenum contains micro-organisms, but these are ordinarily few in number and not of the varieties usually responsible for cholecystitis. Pathogenic bacteria, such as streptococci, may, however, be abundant in inflammation of this part of the intestine, and may, perhaps, find their way to the gall-bladder. Moreover, it is a well-known fact, as shown many years ago by Netter[34] and Duclaux,[35] that the lower portion of the common bile duct, near the ampulla, normally contains bacteria. Lippmann,[36] in more recent observations, found them normally in the middle and upper thirds of the duct, although they decreased rapidly in number as the gall-bladder was approached.

Experiments like those of Metin[37] and Carmichael[38] are also brought forward in support of the assumption that gall-bladder infections are ascending ones. The latter states that after injecting the bacillus coli communis, bacillus typhosus and streptococcus into the portal circulation of rabbits, he was unable to recover bacteria from the bile, and therefore concludes that the liver destroys the micro-organisms which reach it, making, to his mind, the occurrence of biliary infection from the portal circulation improbable. The investigations of Blackstein,[39] Fütterer,[40] and others, on the other hand, show that intravenous injection of the typhoid and colon bacilli is often followed by the appearance of these organisms in the bile.

Dissenting voices have recently been raised against the current view that infection of the gall-bladder invariably occurs through the common duct. It has, indeed, been urged by Desonbry and Porcher[41] and by Nocard,[42] but especially by Adami,[43] that bacteria not alone reach the deeper structures of the intestine under what appear to be normal conditions, but commonly invade the blood of the portal circulation and liver and kidneys during life. This phenomenon occurs, according to Adami, through the intermediation of the leukocytic emigration, which occurs with especial prominence during digestion, back and forth through the mucosa to the free surface of the alimentary tract. These leukocytes, while in part undergoing destruction, in part find their way between the epithelial cells, carrying with them foodstuff and solid particles, among which may be the bacteria present in the cavity of the gut. Many of the bacteria finding their way into the lymphatic channels or the venules of the portal system are for the most part destroyed and digested by the leukocytes. But in a large number of cases some living bacteria reach the healthy liver and kidney. It is most probable that in ordinary health a certain number of micro-organisms which have not been destroyed by the leukocytes or removed by the lymph nodes or endothelium of the portal system, pass either through the thoracic duct into the systemic blood or directly into the liver. Thus we have a condition which the French term "microbisme latent," or, as Adami prefers to designate it, "latent infection."

If this be so, it constitutes an important step in the solution of the problem as to the portals of entry in infections of the liver and gall-bladder. Unfortunately, however, investigators are not unanimous in their conclusions with regard to the emigration of bacteria under these circumstances.

Passing over the earlier work of Meisser and Zweifel on the presence of organisms in the living tissues, we come to the work of Hauser,[44] who found, without exception, that the tissues of the normal body were sterile. Neisser[45] reached similar conclusions, and Opitz,[46] from an investigation of the mesenteric glands of cattle, concludes that bacteria normally do not pass through the intestine. On the other hand, Ford,[47] from a very extensive bacteriological study of the normal organs of rabbits, guinea-pigs, cats and dogs, arrived at different conclusions. Like Neisser and Opitz, he found that the cultures were often sterile at the end of two days, but longer cultivation usually showed the presence of bacteria. By this method he found that at least 80 per cent of the livers and kidneys of normal animals contained bacteria.

Morgan[48] has since gone over the work of Ford and, notwithstanding the fact that he sometimes found bacteria, concludes that normal organs are sterile, and regards the presence of non-pathogenic micro-organisms in the cultures as the result of contamination.

Wrzosek[49] also recently investigated the passage of bacteria from the intestine to the tissues under normal conditions. He, like Ford, finds that the normal animal tissues may contain bacteria in variable numbers. His results differed according to the methods utilized. It was found that when the juice alone of the spleen was used bacteria were not demonstrated nearly as frequently as when pieces of spleen were employed. For example, by the latter method organisms were shown seven times out of twenty-eight, while when the juice was used two only out of twenty showed any growth. These differences, he found, apply to other organs.

Wrzosek accepts the view that the bacteria found in tissues under normal conditions are of intestinal origin. For the demonstration of this, bacteria not normally present in the intestine were mixed with the food of the animals. Killing them two or three days later, the micro-organisms were often recovered from the liver, spleen, kidneys, bone-marrow, muscles and almost invariably in the mesenteric glands. Further, he believes that the migration occurs through the general circulation by way of the chyle and thoracic duct. In order to confirm this, the thoracic duct was ligated and the animals fed easily recognizable bacteria. Cultures showed only occasionally the ingested organisms; therefore, he concludes that the bacterial migration takes place chiefly through the thoracic duct.

In order to throw more light, if possible, on the question as to whether or not bacteria are normally excreted by the liver, the author made a number of experiments. The first series consisted in tying the common duct of five dogs and afterwards feeding them food contaminated with the bacillus pyocyaneus. The animals were killed from two to five days afterwards. In two of these the bacillus pyocyaneus was recovered from the cystic bile, both times associated with the bacillus coli communis. The whole contents of the gall-bladder were used in making the cultures. Five other dogs, after preliminary ligation of the common duct near the junction of the cystic duct, were fed for several days small quantities of bichloride of mercury or arsenic, so as to induce inflammatory lesions of the intestine. They were then given food contaminated with the bacillus pyocy-

[34] Netter: Présence Normale de deux Microbes Pathogènes dans le Choledoque. Bull. de la Soc. Anat., Oct. 29, 1886.

[35] Duclaux: Chemie Biologique (Encyclopedie Chimique de Fremy), vol. IX, 1887.

[36] Lippmann: Le Microbisme Biliare, Normal et Pathologique. Thèse de Paris, 1904.

[37] Metin: Élimination des Bacteries par les Reins et le Foie. Ann. de L'Institut Pasteur, 1900.

[38] Carmichael: The Effect of Injection of Micro-organisms into the Portal System, on the Sterility of the Bile in the Gall-Bladder. Journ. of Path. and Bacteriology, vol. VIII, 1902.

[39] Blackstein: Intravenous Inoculation of Rabbits with the Bacillus Coli Communis and the Bacillus Typhi Abdominalis. Bull. Johns Hopkins Hospital, vol. II, 1891.

[40] Fütterer: Wie bald gelangen Bacterien welche in die Portalvene eingedrungen sind, in den grossen Kreislauf und wie beginnt die ausscheidung durch die Leber und die Nieren? Berlin. klinische Woch., Bd. XXXVI, 1899.

[41] Desonbry and Porcher: De la Présence de Microbes dans le Sang de la Circulation Generale chez le Chien. Bull. de la Soc. de Biologie, Fe[illegible] 1895, Ibid., May 10, 1895.

[42] Nocard: Influence des Repas sur la Pénétration des Microbes dans le Sang. Semaine Medicale, 1895.

[43] Adami: On Latent Infection and Subinfection, and on the Etiology of Hemochromatosis and Pernicious Anaemia. Journ. of the Amer. Med. Assoc., vol. XXXIII, 1899.

[44] Hauser: Ztsch. f. Hygiene. Bd. XXII, 1896.

[45] Neisser: Uber Durchangigkeit der Darmwand fur Bakterien. Zeitsch. f. Hygiene, Bd., XXII, 1896.

[46] Opitz: Beitrage zur Frage der Durchangigkeit von Darm und Nieren f. Bakterien. Ibid., Bd., XXIX, 1898.

[47] Ford: The Bacteriology of Healthy Organs. Trans. of the Assoc. of Amer. Phys., vol. XV, 1900.

[48] Morgan: The presence of Bacteria in the Organs of Healthy Animals. Lancet, vol. II, 1904.

[49] Wrzosek: Experimentelle Beitrage zur Lehre von dem latenten Mikrobismus. Virchow's Arch., Bd., CLXXVIII, 1904.

aneus, as in the other experiments. From the cystic bile of three of them the bacillus pyocyaneus was recovered twice in association with the colon bacillus and once with an unidentified aerobic bacillus.

The presence of the bacillus pyocyaneus in the cystic bile can be explained only by assuming that the organisms passed from the intestine either into the portal or general circulations and were excreted by the liver. These experiments eliminate with certainty the possibility of ascending infection in the bile ducts.

There are still other points which favor the view that micro-organisms are sometimes excreted by the liver into the bile. The gall-bladder in typhoid fever, for example, frequently contains the typhoid bacillus in pure culture. Chiari[50] found it post-mortem nineteen times out of twenty-two in the bile. If the infection were an ascending one from the intestine we should expect the frequent presence of some of the bacteria normally present there.

The possibility of infection of the gall-bladder from the general circulation has already been shown by the experimental work of Blackstein,[51] Fütterer,[52] and others who found that the intravenous injection of bacteria is often followed by their appearance in the bile. We have confirmed these observations in a number of instances. Furthermore, Cushing[53] obtained biliary calculi after intravenous inoculation of rabbits with the bacillus typhosus.

Direct infection of the gall-bladder from the peritoneum has not been especially considered by previous writers, since infections from this source would have little bearing on the etiology of the cholecystitis of gall-stones. From a number of observations on cases of experimental peritonitis we are convinced, however, that the cystic bile may occasionally be infected from the peritoneal cavity.

Reviewing the investigations of others and the experiments recorded in this paper, it is evident that there are four paths by which micro-organisms may gain access to the gall-bladder: first, from the intestine through the common and cystic ducts; second, from the intestine through the portal circulation; third, from the general circulation; fourth, directly through the walls of the gall-bladder from the peritoneal cavity. Direct infection from the peritoneal cavity or the general circulation is probably infrequent. We further believe that in the cholecystitis of gall-stones the infection takes place much more frequently through the portal system than through other channels, and that the importance of ascending duct infections has heretofore been greatly overestimated.

[50] Chiari: Uber Vorkommen von Typhusbacillen in der Gallenblase bei Typhus Abdominalis. Ztsch. f. Heilkunde, Bd., XV, 1894.
[51] Blackstein: Loc. cit.
[52] Fütterer: Loc. cit.
[53] Cushing: Loc. cit.

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(See *Collier's Weekly*, Nov. 4, 1905.)

THE RADICAL CURE OF UMBILICAL HERNIA.*

By A. W. MORTON, M. D., San Francisco.

UMBILICAL hernia is of very common occurrence during the first year of life, being a little more frequent in the female child than in the male. In adult life, according to Berger, it is much more frequent in the female, 22.16% to 2.5% in males. Umbilical hernia in adults is nearly always acquired, and seldom seen before the twentieth year. It generally occurs in obese women and men; but usually in women who have born a number of children. The obesity favors a weakened condition in the structures about the umbilical ring; this location is also favored on account of the ring and the tendency for separation of the rectus muscles above it. The exciting causes are any strains which bring intraabdominal pressure, as lifting, coughing, and straining as in childbirth.

The hernia is usually about the size of a closed fist, and contains attached omentum, and is some-

FIG. 1

times very large, and may contain much of the intestinal tract and other organs. The covering of the hernia is very thin, consisting of peritoneum, fascia and skin which has lost much of its strength from over-distention, and there is a tendency to ulceration.

The infantile form generally recovers without any surgical procedure. The surgical treatment of umbilical hernia has been very unsatisfactory in the past; most of the text-books rather advise against the operation; Warren & Gould[2] say, "In the majority of umbilical hernias, operation is not to be advised," the authors say, "Twelve relapses out of twenty-one cases traced." Wharton & Curtis say, "The operation for umbilical hernia is rather unsatisfactory because of the difficulty in bringing the edges of the umbilical ring in contact, on account of the great abdominal

* Read at the Thirty-fifth Annual Meeting of the State Society Riverside, April 1905.

tension. Relapses are very frequent after these operations.

The ordinary text-book method is to expose the hernia by a longitudinal incision. After reducing the hernia or removing it, should it be omentum, they close the peritoneum, as in any ordinary abdominal operation, and the fascia is then brought together. Often it is impossible to use the above method successfully.

The overlapping method of repairing hernia which has solved the problem, was first brought to our attention by Dr. E. Wyllys Andrews of Chicago, as early as 1895,[4] in an article entitled, "Imbrication or Lap Joint Method, a Plastic Operation for Hernia." In

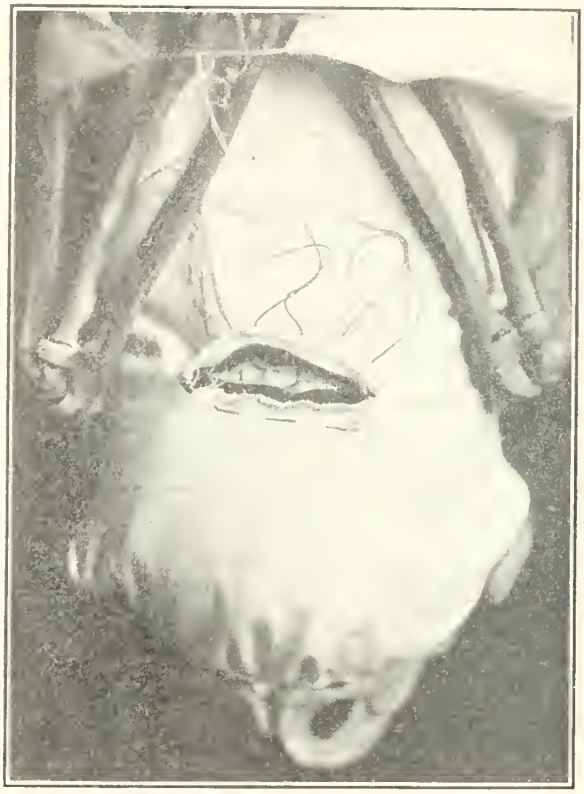

FIG. 2.

this paper he describes four different methods of overlapping the fascia in repairing hernias.

It remained for Dr. Wm. Mayo[5&6] to make the application to umbilical hernia, which has revolutionized the treatment and makes it one of the simplest forms of hernia to repair. The technic of his operation is as follows, viz.:

"1. Transverse elliptical incisions are made surrounding the umbilicus and hernia; this is deepened to the base of the hernial protrusion.

2. The surfaces of the aponeurotic structures are carefully cleared two and a half to three inches in all directions from the neck of the sac.

3. The fibrous and peritoneal coverings of the hernia are divided in a circular manner at the neck, exposing its contents. If intestinal viscera are present the adhesions are separated and restitution made. The contained omentum is ligated and removed with the entire sac of the hernia and without tedious dissection of the adherent portion of omenta.

4. An incision is made through the aponeurotic and peritoneal structures of the ring extending one inch or less transversely to each side, and the peritoneum is separated from the under surface of the upper of the two flaps thus formed.

5. Beginning from two or two and one-half inches above the margin of the upper flap, three to four

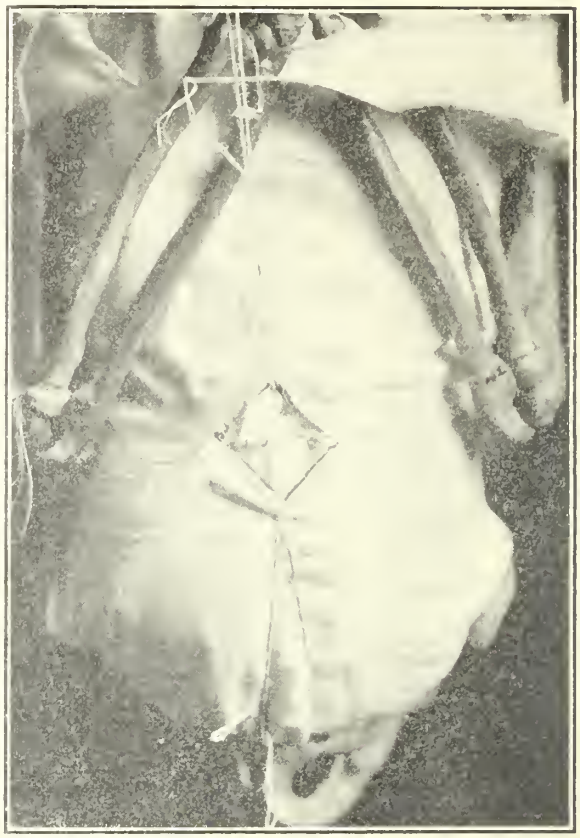

FIG. 3.

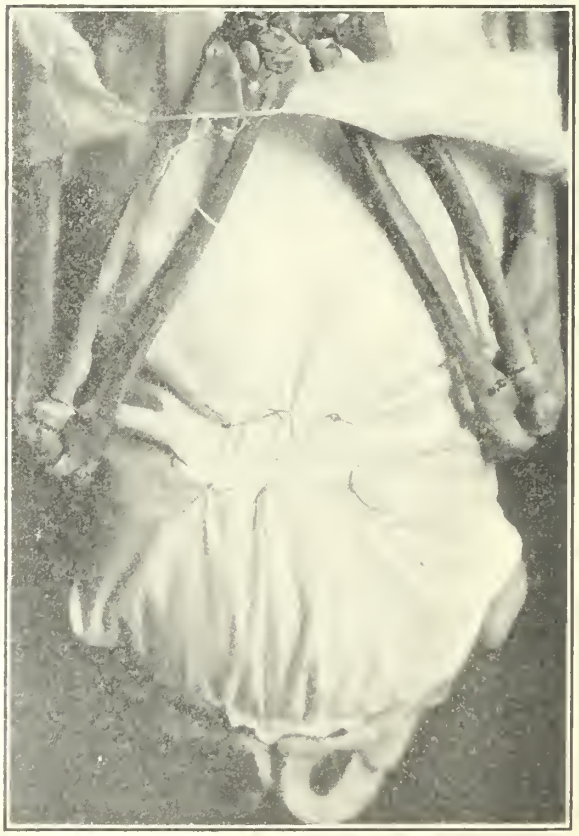

FIG. 4.

mattress sutures of silk or other permanent material are introduced, the loop firmly grasping the upper margin of the lower flap; sufficient traction is made on these sutures to enable peritoneal approximation with running suture of catgut. The mattress sutures are then drawn into position, sliding the entire lower flap into the pocket previously formed between the aponeurosis and the peritoneum above.

6. The free margin of the upper flap is fixed by catgut sutures to the surface of the aponeurosis below, and the superficial incision closed in the usual manner. In the larger herniæ the incision through the fibrous covering of the sac may be made somewhat above the base, thereby increasing the amount of tissue to be used in the overlapping process."

In performing the operation by overlapping from above downward I have always found it free from tension, which is very essential in obtaining primary union, and it also gives very much more space for respiration which is more or less impeded by the lateral closure. It makes a stronger union than an edge approximation.

I have used the above method in 5 cases, except I always use kangaroo tendon or chromic catgut instead of a non-absorbable suture. In two of the cases I made only one transverse elliptical incision, so that the umbilicus was not removed; this can readily be retained in small hernias, if so desired. The 5 patients have made complete recoveries, without any relapses.

I believe there are no more objections to the performance of this operation for umbilical hernia than to the operation for any other form of hernia, and there should be as great a percentage of recoveries in the same class of patients. Mayo reports 25 operations overlapping from above downward, no deaths or recurrences.

DISCUSSION.

Dr. Emmett Rixford: The Mayo operation for umbilical hernia is a great practical advance on any procedure previously suggested in these cases. In my hands it has proven of the greatest value. Mention has been made of the fact that Andrews of Chicago deserves priority for the use of what he calls "imbrication" in inguinal hernia, and another has referred to the operation of Lucas Championnier in which a sort of "imbrication" is used. As I understand the operation of Mayo, the only claim made as to originality is for a rotation of 90°, i. e., Mayo makes a transverse suture line, thereby shortening the sagittal semi-circumference of the abdomen instead of the transverse or horizontal. And just here is a very important consideration, the abdominal wall is shortened by the operation in exactly the direction in which it is pathologically lengthened, and the direction in which it can be shortened without embarrassing the respiration.

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1. Berger, Traite de Cherurgie, Tome VI, page 321.
2. Warren & Gould, text 1902.
3. Wharton & Curtis, text 1902.
4. *Chicago Medical Record*, page 67, 1895.
5. Report section of Surgery, A. M. A., 1903, page 187
6. *Annals of Surgery*, Jan. 1899.

FURTHER DATA UPON THE CHEST SHAPE IN TUBERCULOSIS.*

By WOODS HUTCHINSON, M. D., Redlands.

SINCE my attention was first directed to this question by some measurements which I made of tuberculous chests nine years ago, a number of additional data have been collected, some by myself, but more by observers on both sides of the Atlantic whose interest was aroused by the publication of my results in the British Medical Journal in 1900. These measurements now number some 700 and support with singular closeness and unanimity substantially the same conclusions as my first series of 40 measurements; that is, that the tuberculous chest is not *flat*, as at first glance it appears, and as most text-books yet describe it, but *round*, and instead of its antero-posterior diameter being diminished, this is normal, or slightly increased, while the shrinkage has occurred in the transverse diameter.

In order to express the relations of the two diameters of the chest, it was necessary to devise a chest index based upon the same principle as the familiar cranial index, and to determine what this index was first of all in normal individuals.

My first measurements indicated a normal index of 72, but I have since then succeeded in accumulating a series of tables of nearly 5000 measurements of normal individuals, chiefly soldiers in garrisons and college students and athletes in gymnasia, and upon this larger mass the average index is slightly lowered, namely, 70. The measurements of the 700 consumptive chests show an average index of 78, and with the exception of one markedly aberrant series, the other 11 averages, range within one point of 80, either above or below, thus making the consumptive chest 10 degrees rounder than the normal. As these 700 measurements have been taken in three different London hospitals, Leeds, England, in New York, in Chicago, in Buffalo, in Portland, Ore., in San Francisco, and in Memphis, Tenn., they may be regarded as fairly well establishing an average in this disease. This shape of chest is, of course, the persistence of the child chest, and represents an arrested development at about the proportions, normal at the 12th to the 15th year. As is well known, the fetus has a chest deeper than its width, the infant at birth has an almost circular chest, index from 95 to 100; by 5 years this has flattened to 90 degrees and by 12 years to 80 degrees. This also represents an evolution from the ancestral quadrupedal chest, which in all mammals outside of the human species, except the anthropoid apes, some of the bats and some whales, is much deeper than it is wide. A similar form of chest has also been found by Drs. Evans and McHugh, of Chicago, among the paupers in Cook County Hospital, and by Arthur McGugan among the chronic insane, thus making it probable that it is the type of chest associated with arrested and imperfect development, or as we loosely term it, "degeneracy."

Of this series of cases some 70 were measured in a very early stage of the disease, and these show an index within one point of as high as the rest of the series, thus making it highly probable that this type of chest precedes the disease, although it is probably exaggerated by the increased respiratory effort and interference with proper emptying of the lungs due to the lesions of the disease.

Another straw pointing in the same direction is the fact that of 31 successive cases of phthisis in my own practice, the 16 patients who did badly (6 of them dying) presented an average index of 80.2, while the 15 who did well (4 of them making complete apparent recovery) showed an average index of 74.6.

As only 15 per cent of the tuberculous patients measured failed to show a higher index than the normal, it would thus appear as if the measurements of the chest would furnish a datum of considerable value in the diagnosis of tuberculosis, and that any child or young adult presenting a higher chest index than normal, for their age ought to be given a vigorous open air life with abundance of nutritious food and every measure taken which would promote normal development and the attainment of full vigor.

An exaggeration of this type of chest, due to the lateral pull of the diaphragm gives rise to the pigeon breast of rachitis and pharyngeal adenoids.

The round, long chest and small heart of puberty form the physical basis of the *habitus phthisicalis*.

*Abstract of a paper read before the San Bernardino Medical Society, November 8, 1905.

To obtain the best results in cases of Colles's fracture the patient should be placed under an anesthetic during reduction.—*International Journal of Surgery.*

MEDICAL SOCIETIES.

COOPER SCIENCE CLUB.

At the regular meeting of the Cooper Science Club held December 4th, several papers of unusual interest were presented.

The following paper on "Lead Poisoning" was read by Dr. William Blake:

This paper is based on the study and treatment of 12 cases of lead poisoning. The individuals afflicted were workers in a local can manufacturing company, and their particular work was the running of newly invented soldering machines. In connection with each machine was a revolving wire brush, by means of which the excess of molten lead was removed from the end of the can. The new invention served the useful purposes of giving a smooth end surface to the can and lessened the quantity of solder necessary, and at the same time turned out more work than the old style soldering machine.

The victims of this new labor saving device presented themselves at the medical clinic of Cooper Medical College during the month of May and June of this year. The cases are all of the acute type and none of the afflicted have so far presented any of the sequelæ that follow in the train of chronic lead absorption, that is, atrophic paralysis, neuritis, encephalopathy, arterio-sclerosis, and arthralgia.

I will confine this paper to a brief consideration of the history and treatment of these cases, leaving the discussion of clinical findings in the blood, stomach and urine to a paper by Dr. H. R. Oliver. These observations are made on male patients, ranging in age from 20 to 74 years. Most of these men had worked in this same factory and at similar soldering work for the three previous years and had not experienced the slightest discomfort. But with the opening of the new canning season this past March and coincident with the installation of new labor saving soldering machines, all the men actually at work with these machines quickly developed symptoms of poisoning.

Just here is pertinent the question as to the mode of infection: It is generally accepted that the metal may find its way into the system in three ways: inhalation, ingestion or absorption through the skin or abraded surfaces. It is manifestly impossible to absolutely exclude any two, or even one, of these channels of invasion and so by exclusion narrow to one, the possible channels of entrance. The mechanical action of the machine was such that by it minute particles of the solder were thrown off into the air. Lead is such a heavy element that it seems to me improbable that much, if any of it, could be drawn into the lungs. But this dust could undoubtedly be drawn far enough into the nose and mouth during inspiration to lodge on the mucous membrane of these cavities; it could be deposited on the hands and face and clothes; it could find its way into drinking vessels and open lunch pails and from any, or all of these sources, easily find its way into the digestive tract. This class of individuals are indifferent in the care of their hands and teeth and the same dust laden hats and clothes they wear at work are habitually worn at meal time. So it seems to me most probable that it was by ingestion that the poison was taken into the system.

Case No. 3, at first thought, does not lend much support to this observation. This man did not work at a soldering machine and had nothing to do with lead. His work station was some ten feet from the nearest machine. He was nevertheless within the zone of the lead dust laden atmosphere, and, after a period of exposure somewhat shorter than the average in the other cases, he, too, developed all the typical signs of acute lead intoxication.

The average period of exposure was 50 days, the longest 79 days, the shortest 5 days. The age of the man exposed 79 days was 74 years, the age of the man exposed 5 days was 20 years. This observation would seem to lend credence to the rather accepted idea that children and young adults are more quickly and markedly susceptible to lead absorption than those of advanced years. But, per contra, the remainder of the series do not substantiate this observation. It is true that the most pronounced case of all was in a man of 24, but two others, 23 and 28 years of age, who had done the same work for an equal length of time, showed comparatively mild symptoms; and one man of 35 worked 75 days before he noticed anything wrong and then only by suggestion from the condition of his associates.

Symptoms: I have divided these into objective and subjective groups and have arranged them in what seemed to be the order of their constancy and severity.

Objective: Appearance of profound anemia, lead line in gums, foul mouth and breath, flabby tongue frequently bearing indenture of teeth, prominent belly, giving pronounced tympanitic note on percussion.

Subjective: Abdominal distress and colic, constipation, anorexia, muscular weakness, dyspnea, rather weak rapid heart, subnormal temperature, sore gums, foul taste, excessive thirst, anaphrodesia.

Some of the symptoms, both objective and subjective, need a word of explanation. The appearance of anemia was very marked, amounting to a profound cachexia; this with the drawn expression of pain of the face, the dyspnea and the bent carriage of the patient to relieve the pain and jar to the abdomen instantly attracted attention. The site of the abdominal pain was not constant, moving frequently and rapidly in the same individual, but most frequently was referred to an area surrounding the umbilicus. A dull ache was almost constant, punctuated at varying intervals with intense paroxysms of colic, constipation was almost constantly present and very obstinate. One of the men came to the clinic with a note from his physician, suggesting an immediate operation for the relief of the obstruction. Muscular weakness was very marked in all of the patients and even now after a lapse of 6 months they all complain of tiring easily.

Treatment: Largely symptomatic. For colicky pains, one or two doses of morphine. For indigestion and flatulence, hydrochloric acid. Potassium iodide as alternative and eliminant. Magnesium sulphate and high enemas for constipation. Later, blood tonics.

Results of Treatment: The patients responded remarkably quick to this very simple treatment. As a rule the pain was easily controlled by one or two administrations of morphine. The constipation was quickly and effectually relieved by magnesium sulphate and high rectal enemas. The administration of hydrochloric acid relieved the condition of hypoacidity and the digestive symptoms at once subsided. Of the role of potassium iodide as an eliminant I can say nothing. This much was demonstrated repeatedly—that by the exhibition of these remedies a return to apparent health and strength was quickly accomplished, and without exception the men were able to return to work within a period of two weeks. Of the particular part of the treatment concerned with the administration of hydrochloric acid, I think special mention is due. It is universally recognized that the various anemias and chlorosis are very refractory to treatment where the normal acidity of the stomach is reduced, and that many of these cases remain absolutely at a standstill and the absorption of iron nil until this condition of hypoacidity is recognized and treated. With the exhibition of hydrochloric, in addition to the iron the picture changes and most gratifying results quickly follow where before our therapy seemed barren of achievement.

In the present series of cases after we had been able to verify the investigations of Sailer and Speese in a series of lead poisoning cases where the stomach analysis invariably showed a diminution or absence of hydrochloric acid, Dr. H. R. Oliver suggested that hydrochloric acid be given to supply the deficiency, and I believe it was largely instrumental in the rapid amelioration of the gastric and intestinal symptoms and so paved the way for the very satisfactory progression of these patients.

As to the subsequent history of these I am not so sanguine. Last week one of the patients again presented himself at the clinic, with symptoms of neuritis in the right lumbar and abdominal region with pain radiating over the hip. Aside from the above none of the patients have shown any indications of nervous or mental derangement, nor is their apparently any muscular wasting, any tumor or incöordination. There has been some slight improvement in the blood picture of some of the men, but in the main this condition is not encouraging. When, too, we realize that this class of patients is often forced by social and financial circumstances to return again and again to the same trade or occupation, however undesirable it may be, we see another potent cause why so many of them fail in complete recovery.

DISCUSSION.

Dr. Ophuls: Lately I have had quite a little experience with experimental lead poisoning in dogs. As in the man, this form of poisoning usually leads to chronic nephritis, my chief object in the experiments was to produce this trouble, in which however, I have so far failed entirely. While I was studying the progress of the poisoning, I repeatedly examined the blood and found all the changes as they occur in human beings, polychromatophilia, Grawitz degeneration, numerous nucleated red blood corpuscles, and what interested me most, toward the end quite a few megaloblasts. I have sacrificed one of the dogs and at the autopsy have found a condition very much like that of pernicious anemia in the man; pigmentation of the spleen and liver with hemosiderine and red bone marrow in which there were a large number of typical megaloblasts. Similar results have been obtained before with other blood-poison, for instance with tuloylendiamine. These experiments go far to prove that pernicious anemia is not a primary disease of the bone marrow as Ehrlich wants it but the result of an intoxication with some as yet unknown poison which destroys red blood corpuscles.

The following paper was read by Dr. Oliver, reporting bacteriological work in lead-poisoning cases:

Basophilic granules were first observed by Marchiafava and Celli in cases of malaria. There were small, round bodies they took to be cocci. Some were seen in the same cells with the parasites, and they associated them with the malaria parasite. Later they concluded that this was not the case. Then Celli and Gaurnieri found them in morbus maculosus Werlhofi, measles, scarlatina, smallpox, typhoid fever and various forms of anemia, pneumonia, etc., and state that they may be present in health. Ehrlich, even before this, had apparently seen these granules, but did not publish his article until later, 1885. Later in 1888 Foa reported them in the form of a ring (Cabot's ring bodies?) at the periphery of cells, and, according to him and Mondino, represented remnants of nuclear substance. In 1881 Wertheim found them in fourteen cases of leukemia and associated them with Karyokentic changes in unnucleated red cells. He observed them also in nucleated reds, the nucleus of which was breaking down.

There was not much done on this subject until 1893 when Askanzi reported their presence in pernicious anemia. He also found them in leukemia. He pictures them in the non-nucleated as well as in nucleated cells and in polychromatophilic cells, as well as in normally colored reds. He described the last cells as normoblasts filled with nuclear fragments.

In 1894 Schauman observed that the granules in polychromatophilic cells were finely granular, and that such granules were found in nucleated cells undergoing karyokenesis.

Lazarus two years later demonstrated them in pernicious anemia, and announced that he had found such granules in every one of more than twenty cases and that he found them more commonly in megaloblasts than in normoblasts, but they were also in cells presenting an entirely normal protoplasm. He regarded them as evidence of karyorrhexis or degeneration of the nucleus. Klein, the next year, noted granules in the poikilocytes in pernicious anemia.

In 1899 Plehn announced that in the blood of both European and negroes in Kameron (West Africa) he found these granules. He termed them Karyochromatophilic granules, and regarded them as ground forms of malarial parasites. He states that he often found them in blood which showed no plasmodia. He also observed that the number and size of the granules increased with improvement of the anemia and decreased with blood destruction. He also reported them in cases in the malarial districts of Rome, but states they were not so numerous or of so large a size, and thought they had to do with latent malaria in returned Europeans from tropics.

Grawitz regards their presence as evidence of a peculiar form of degeneration, granular degeneration, and states that they are only found in those morbid conditions in which a degeneration of red cells occurs, and has nothing to do with the appearance in red cells of products of disintegration of the nucleus, nor should they be regarded as a phase of polychromatophilic degeneration. He thinks that this degeneration takes place in circulating blood as the result of different blood poisons, and that this peculiar reaction of the cell protoplasm is produced.

In chronic lead poisoning Grawitz states that in twenty cases granular cells were found in every instance, and were seen when no other blood changes were present. He advises in cases of coma to look for them as of value in diagnosis of saturnine encephalopathy, as they do not occur in uncomplicated cases of diabetic or uremic coma. He also states that they disappear from the blood after four to six weeks' treatment. So it is possible to use this fact as a therapeutic control.

Bloch states that he found them in eight of eleven cases of lead poisoning, and also that they were most numerous where there were intestinal symptoms, and also that he did not find them in cases where there were severe intestinal symptoms. In a number of cases of H_2So Hg_2Cl_2 and KCO_3 the granules were not found. White and Pepper found them in lead workers without the subjective symptoms and in heat cases. In heat cases (eight) four were iron workers at furnaces and four receiving hot air treatment. Granule cells were found in only one—a furnace man. They also experimented on dogs. Grawitz kept a guinea pig at 37-40 C and in a short period granules were found, and he thinks this is the solution of the presence of the granules in returned Europeans.

Simon examined the blood in twenty lead cases and found the basophilic granules constantly present. He also experimented on two of his laboratory workers and was able to demonstrate the granules in 72 hours after the administration of 6 grams of lead acetate per orem. In one he continued the experiments until abdominal symptoms appeared, and pain and constipation occurred, (the lead was stopped) and many granules were found. Six days later one normoblast was found, but the man was originally anemic. White, Pepper, Stengel and Simon all seem to agree with Grawitz as to the origin of the granules.

Schmidt experimented on dogs with lead and phenol hydrazin and demonstrated many granular cells as well as nucleated red corpuscles in the peripheral

circulation. Subcutaneous innoculation in a rabbit with phenol hydrazin showed the same result in a short time. He also ligated the ear of a dog and fed lead. In other parts of the circulation he found granular cells, but in the ear ligated none were found. Schmidt, in these experiments, found nucleated red cells, the nucleus of which appeared to be undergoing various forms of dissolution and not only were they found in the circulation but in the bone marrow. He came to the conclusion that these basic staining granules were remnants of a broken nucleus, and that the process had its origin in blood-forming organs and not in the general circulation. Cadwalder at Pennsylvania Hospital found so often nucleated reds in conjunction with granules in lead cases, even when total number of reds were very slightly reduced, that he thought that there must be some relation between the two, so he estimated the number of reds per 1 cmm., number of leukocytes per 1 cmm., and per cent hemoglobin, and made differential count of 500 leukocytes and estimate of number of nucleated reds, and estimated the per cent of red corpuscles containing granules. In five normal persons whose blood he tested as control, the granules were found in each case in from .4 of 1 per cent to 1.6 per cent in 1000 reds counted; the number of reds, whites and hemoglobin being normal. He also noted that the granulated reds presented no abnormality. In light cases where red count did not go below 3,404,000 and the hemoglobin 70, all but two showed increase in granular cell average, 4 to 500, and five presented nucleated cells. In sixteen cases more severe, the granular cells showed average 14 to 1000, and nucleated 2 to 130, and in some cases typical megaloblasts were found.

His conclusions are: That, first, basophilic granules occurring in erythocytes are normally present in small numbers in man, but may be increased under certain conditions and decreased as convalescence is established. Second, nucleated reds are common in the blood of lead-poisoning cases, and are always accompanied by increase in the granular cells. Third, the anemia secondary to lead poisoning as a rule is only of a moderate degree. Fourth, that granular cells are most common in lead poisoning, and possibly have their origin in blood-forming tissues and are probably results of fragmentation of nucleus fed corpuscles.

Simon states that in the blood of healthy individuals he has never found a single granule cell, though many were examined.

Origin of the Granules.—On one side we have the hypothesis of nuclear origin, based on the assumption that enucleation of the reds takes place by a process of karyorrhexis, as held by Kolliker, Newman, Foa, Osler, Mondino, Sala, M. B. Schmidt, Spuler and lately by Pappenheim and Masslow, but as yet, even with all their carefnl investigations, this has not been proved.

Maximow was unable to verify Pappenheim's work, and adheres to the hypothesis of Rindfleisch, Bizzero, Howell, Engel, V. D. Strichen, V. Kostanecki, and to some extent by Ehrlich, according to which nucleated reds are transformed into non-nucleated by expulsion of the intact nucleus. Even if this were the case, we should find granule cells specially abundant at the site of this transformation and under normal condition in the bone marrow, but Grawitz states that not in a single instance were they found, and similar observations are held by Littens and Bloch.

The only exception is one case of Litten's. White and Pepper state that they found some in their dogs' bone marrow that had been fed with lead, but in no instance where they were more numerous than in the circulating blood. Some observers point out that in the blood of various animals during embryonic life granule cells and similar cells were found, and were supposed to be connected with changes in the nucleus and were advanced as part argument of the origin of the granules in adult men. Engel and Pappenheim found them in mice. Both in embryonic mice and Schuman in cats. Ehrlich in adult rabbits. Simon has seen them in a squirrel. In several fetuses 2 to 9 months old Bloch found no granules in the blood of liver, spleen or bone marrow. Simon had the same results. From the occurrence of such cells in embryonic animals and in some lower vertebrates, as the salamander, it does not follow that they are of nuclear origin. Then, the other hypothesis presents itself. Supported by Grawitz and Litten, in which the presence of the granules is an expression of some change in the hemoglobin or the discoplasm. Ehrlich thought that both polychromatophilic and granular degeneration parts of each other, and regarded both as an expression senescence of the stroma and result of impaired nutrition. But it has been proved that they are not inter-dependent, as granules in good cells are found. Ehrlich thinks that the granular cells like polychromatophilia is referable to a change in the discoplasm, and may be an expression of actual degeneration, meaning a pathologic process ending in death of cells.

In favor of this is the fact that as a rule the largest granules are found in poorest colored cells, and as Ehrlich says the discoplasm has possibly lost the power of forming hemoglobin and that granulation takes place in the circulation and not in the bone marrow, which would be the case if they were growing cells.

Clinical Significance.—They do not indicate any one disease. In differential diagnosis between pernicious anemia and chlorosis. In leukemia they are not constant. Their presence is of special value in lead poisoning, and the blood should be examined in each case. Simon, Grawitz, Bloch, Behring, White and Pepper show that even very trifling exposure to this poison almost invariably leads to appearance of granules in the blood immediately, and, as stated before, on treatment the granules diminish and disappear with convalescence, and they are in proportion to the amount of intoxication present.

In May, 1905, Sailer and Speese reported the findings in the stomach contents of twelve patients suffering from lead poisoning. Up to that time, according to them, nothing had been reported on this important subject. They found an absence of free hydrochloric acid in all their cases, and the total acidity in these cases varied between 6 degrees to 17 degrees, with an average of 11 degrees. They made no report as to the amount of combined hydrochloric present.

Name.	Reds.	Whites.	Hbg.	P. N.	Eos.	Lymph.	S. M.	B.	Grawitz Cells and Polychromatophilia.
Lor	Not taken	Not taken	Not taken	75	1	21	3	0	Present moderate
Bar	Not taken	Not taken	Not taken	69	1	18	11	0	Present moderate
P	3,750,000	9 000	75	54	6	37	1	1.5	Large number
C	2,500,000	6,400	50	70	4	17	9	.....	Large number
S	3,100,000	6,000	60	85	0	9	6	.....	Large number
V	3,800,000	9,000	70	75	2	12	11	0	Large number
De M	4,550,000	7,000	80	75	2	.....	.....	.....	Exposed
Rog	4,250,000	10,000	85	.....	.....	.....	.....	.....	No Grawitz
Card	4,000,000	7,000	80	.....	.....	.....	.....	.....	No Grawitz
Mich	3,750,000	8,000	75	63	1	25	11	.....	Moderate
B	2,500,000	6,000	50	60	1	27	9	...	Large number
R	3,750,000	9,000	75	80	2	12	8	.....	Large number
L	4,100,000	6,000	80	59	3	29	9	.....	Moderate
P	4,200,000	6,700	80	48	2	38	12	.....	Moderate

but gave an average of 11.5 degrees hydrochloric deficit. Lactic acid was present in all their cases. Peptic digestion was much lowered. No Boas Oppler bacilli were present. In our cases, fourteen in all, nine analyses of the stomach content were made. I did not estimate the pepsin or the amount of lactic acid, and will give the findings as follows:

Name	Total Acidity	Free HCl.	Comb. HCl.	Organic acid and acid salts	Lactic
R	12	0	8	4	0
B	16	0	10	6	
S	52	28	16	8	
L	8	0	8	0	
O	60	28	18	14	
V	8	0	6	2	
P	8	0	4	4	
Loo	20	12	8	0	
Bar	22	7	14	1	

One of the worst cases. S, showed normal contents, and O was one only slightly exposed. But this, in general, bears out Sailer. The blood picture, aside from the Grawitz granules and absence of nucleated reds, and the large number of polychromatophilic cells, showed nothing peculiar, except that in most cases there was a diminution in the lymphocytes. The coagulation time was from 2 to 6 minutes. The number of plateletts varied from 180,000 to 280,000. I only gave one count in the table, as numerous subsequent counts showed little change except the disappearance of granules in some of the cases that have recovered; some still have them. The urine in all the cases was normal, showing no albumen, etc. Some samples gave trace of lead with hydrogen sulphide.

(*To be continued.*)

SAN FRANCISCO POLYCLINIC GATHERING.

The meeting was held at 430 Ellis street, San Francisco, on Wednesday evening, December 6, 1905, at 8:35 o'clock p. m. Dr. Ryfkogel presided. The following cases were reported and general discussions of the same were had:

Uncinariasis by Dr. Gunn:

Pedro Ruiz, a Porto Rican, 29 yrs. of age, entered City and County Hospital Aug. 31, 1905, complaining of pain in various joints, accompanied by some swelling and fever. The trouble began about a week prior to entering hospital, with a slight chill, following which there was fever. The right knee became swollen, red and very painful; the left hip was somewhat tender. After four or five days the symptoms in these joints subsided and the left knee joint was involved; there was also slight involvement of the joints of the upper extremities.

There was slight pain in the chest, in the region of the xiphoid. Profuse sweating was present. The examination of the patient revealed the following: Fairly well developed and nourished. Face pinched as if from pain. Slight pallor of visible mucous membranes. Slight icterus of scleræ. Tonsils slightly enlarged; pharynx granular. Lungs normal. The heart appeared to be enlarged somewhat to the left and at the apex, a soft systolic murmur was heard, transmitted only toward the sternum; accentuation of second pulmonic. Moderate pulsation of vessels of neck; a venous hum heard on right side; a thrill felt in both supra clavicular spaces. Radial arteries slightly thickened; pulse rapid (120) and of low tension; abdomen normal; no epigastric tenderness. Both ankle joints were slightly swollen, red and tender; the left knee and right hip joints were tender to pressure. Slight sensitiveness of calf muscles. The skin was soft and showed no evidence of excessive sweating. The cervical, axillary and inguinal glands were slightly enlarged. The knee jerk was increased, other reflexes normal. The temperature 102.4. Urine normal. Blood: Red cells, 3,700,000; leukocytes, 5,260; hemoglobin, 57%. Differential: Polymorpho., 72; small mon., 12; large mon., 12; eosin., 4. A few macrocytes.

The patient's expression and general condition gave the impression that he was a very sick man. The diagnosis had been made of acute articular rheumatism with probably an endocarditis supervening. Blood outlines proved negative. The heart murmurs were somewhat clanging in character; transmitted at times toward the axilla; occasionally heard at the pulmonary orifice, but most generally at the apex. The stools were now examined and ova of uncinaria and tricocephalus dispar found present.

The patient was immediately put on thymol, 20 grains being given hourly until 120 grains had been administered. Following this treatment the general condition rapidly improved, the pinched expression of the face and the thoracic distress disappeared almost immediately. The joint symptoms continued for several weeks, being most transitory in character, appearing for a few hours or days in one or several joints and then shifting to other regions. Usually there was no evidence of swelling or redness, there being only pain and tenderness. The wrists, ankles and knees at times showed slight objective evidences of inflammation.

On October 8th (5 weeks after entering hospital) the patient was discharged. There had been a gain of ten pounds in weight, and outside of a slight degree of anemia he appeared quite well. Naturally, the question arises in such a case as this, whether the joint symptoms were due to the infection with the uncinaria or to an acute rheumatic fever, and in no way related to the intestinal infection.

It is a well recognized fact that joint involvement occurs in uncinariasis in a definite proportion of cases. There is usually pain without much local reaction. But that such local reaction, evidenced by swelling and redness, may occur, I have seen demonstrated on several occasions. In my observations here in San Francisco, on something over 75 cases of uncinariasis, rheumatic symptoms have occurred in quite a large proportion of the cases. I have seen at one time or another almost every joint of the body, except the phalanges, involved. The spine has been quite frequently affected. A peculiar thing which I have repeatedly noticed is that the rheumatoid symptoms quite frequently appear immediately following the destruction of the parasites with thymol. The joint symptoms in this disease are probably due to some toxin absorbed by the blood, which is produced by the parasite in the intestine.

Fever, another symptom this patient had, occurs quite frequently in uncinariasis. It has been noted in over 10 per cent of my series. Usually it is but slight and of short duration, but it may be the most prominent symptom.

The low percentage of eosinophile cells, 4 per cent, in this case is somewhat unusual, but it should be remembered that occasionally, though rarely, eosinophilia is not present. In one case of my series there was less than 1 per cent.

In closing I should like to again draw attention to the importance of constantly keeping this disease in mind. That it is being frequently overlooked is quite apparent to any one interested in the matter. It should be remembered that the disease is by no means confined to tropical peoples, although, of course, they furnish the greatest percentage of cases, as it is found all through our own Southern States and is brought home by travellers of all degrees of station.

Some of the most severe cases I have seen have been in Italians, and although it is well known that certain parts of Italy are quite generally infected, yet the disease among the Italians here seems to be quite ignored.

The parasite, the embryo develops from the egg, and after seven or eight days reaches the second stage, and passes into the system; an infection will occur before that time. The parasite is absolutely harmless. You will notice under the microscope the simple membranes after the embryo has escaped from the egg. The important point I want to make here in this important case is that there are a great variety of symptoms in each case of uncinariasis. The general symptoms occur occasionally, but you have them in cases of rheumatism, and for that reason they might possibly be overlooked.

DISCUSSION.

Dr. Evans: My experience on cases of this kind is very limited, but I have seen several of general symptoms. I was very much interested in hearing Dr. Gunn's paper, and am quite surprised to hear that in

these simple complications he finds such a large proportion of endocarditis. Regarding that very interesting complication, I think we cannot emphasize too much its importance when we consider that it is increasing so rapidly in this country, or at least that so many more cases are being reported. Examination of the stools should be made in all cases of anemia, and in that way we could stamp out this disease in this country, with of course more rigid quarantine inspection. It is, of course, a very difficult matter to compel an examination of the stools, but the quarantine officers should pay more attention to the increase of anemia in this country than is being done at present.

Dr. Phelan: I cannot add very much to the subject just discussed, but I can say the peculiar form of this disease has been known for a long time, as far back as 1827. It was noticed among the coal miners, and in more recent times it was noticed in Europe and among those working in the mountains. The symptoms in Europe are somewhat different from those in this country. The disease is also known in Porto Rico and Mexico and also Central America and other tropical countries.

Dr. Regensburger: I want to say a word about the quarantine question. The officers are powerless to do anything. It seems that the majority of these cases come from our own provinces, from Honolulu and from the Philippines, and the official authorities under our laws are absolutely powerless to do anything in the matter. The only people who have any jurisdiction in the matter is the City Board of Health. It is a peculiar thing that they should be the ones who have the authority to board the steamers and take the people in quarantine. The City Board has conferred with the State Board on that matter, but they have reached no conclusion. The only thing is simply to let these people come in and give Dr. Gunn some business.

Dr. Porter: I had the pleasure of making the diagnosis of the first case reported here, and it was a case in which there was between 10 and 15 per cent hemoglobin, and it was also a case peculiar in having the highest total eosinophiles per millimeter. One of the cases, about the time we had diagnosed our case of uncinaria, was that of a man who was almost dead, and we gave him felixmas. Dr. Kennedy did; I had nothing to do with the felixmas. The next day, when we saw him, he was worse. We were interested in the worms, and according to the case there ought to have been three thousand. But whether he had that many I don't know; after the next dose of felixmas the stools showed twenty worms.

Dr. Richardson: In my experience of cases of dysentery, I have seen these joint complications occur a number of times, and I do not know whether they bear any relation whatsoever to uncinariasis, but would seem to in certain cases. Joint lesions are also found in cholera and typhoid fever. As stated by Dr. Gunn, in referring to the joint lesions of uncinariasis, I am unable to say why they should occur in these diseases, but I know that in cholera especially the joints are sometimes affected.

Dr. Gunn: Speaking of the subject Dr. Porter just mentioned, illustrating the eosinophiles, I was exceedingly interested in one of these cases—that of a little girl, reported a year or so ago, where the hemoglobin was about thirty.

I had a patient in Lane Hospital, a woman, with hemoglobin about twenty. I gave twenty grains of thymol inside of six hours. We watched her carefully, and she took it without the slightest discomfort, and it apparently proved sufficient. I think in most cases you can give it in very large doses without any danger. I have, however, one patient who had taken thymol in the same amount and immediately had convulsions.

One of the patients could not take twenty grains of thymol without showing marked symptoms of colitis. Later on I gave him the twenty grains of thymol in the usual way after gradually working up to it. Mucus in the stools is quite evident, almost of any character. It is not characteristic at all. You may find even blood in the stools.

Acquired Hemiplegia by Dr. Hill: I wish to present two cases of acquired hemiplegia in infants 20 and 21 months old, respectively. They are typical cases and almost identical in age of patients, character of onset, previous general condition, distribution and character of paralysis and subsequent history. They occurred within six weeks of each other. Both cases are of the acquired form, coming on suddenly in infants previously healthy, and are to be distinguished from the intra-uterine and birth palsies. Neither case had endocarditis, kidney trouble, previous acute infectious disease, middle ear disease, history of trauma or tuberculosis. There is no history of difficult or forceps delivery. I delivered Case 2, and it was a normal delivery. Both had an associated ilio colitis and both indiscreetly fed.

Family history of Case 1 is interesting. Father is well, the mother is a luetic, has tertiary sores and will admit of no treatment except applications of burnt rags to the ulcers. She has had several miscarriages. Two other children are living, one 10 years old, well. One 7 or 8 who according to the father's statements is sickly, holds his head on one shoulder and back is bowed. Three children died in convulsions before the completion of their first year, age 6, 7, and 11 months respectively.

Family history of Case 2: Father rheumatic, mother well, several miscarriages. Mr. E., mother's uncle, epileptic. Mrs. W., sister of mother, epileptic (hystero epilepsy); grandmother died in epileptic fit; grandfather has had three paralytic strokes.

Both children have significant family histories admitting of a heritage of nervous instability, vascular weakness.

Case 1: Baby B. referred to me by Dr. Lucas of Point Richmond, from whom I obtained the previous history. On Oct. 13th, the child was well and playing in the yard when he suddenly fell in a convulsive seizure, convulsions lasted 30 minutes. He was semi-conscious for 4 days, during which time he had as high as 13 convulsions daily. These were unilateral on 2nd day, involving lower half of face, arm and left of right side. There was conjugate deviation of eyes. He had a severe case of gastro enteritis; paralysis appeared on returning consciousness and involved right side, lower part of face, arm and leg. Beginning first in the leg, then arm, then face. Reflexes gone, pulse 140 to 170, temperature lasting one week, ranged from 100 to 105. (Fontanelle bulging during seizure.) I saw the baby Oct. 23rd: baby had a foolish expression, was well nourished, well formed head and extremities, palate O. K., fontanelle open, glands everywhere enlarged, one undescended testicle, adherent prepuce, baby babbles foolishly, aphasic, has had considerable difficulty in swallowing, laughs and cries one-sidedly. Lower half of face, right arm and leg motionless, spastic, some movement can be elicited in toes and foot. Reflexes lively, no ankle clonus. Response to galvanic and faradic O. K. Pain sense present. Baby refuses to have anything to do with right side. Temp. normal, bowel movements contain considerable mucus, baby unable to sit up.

Wednesday, Oct. 27th, baby had a temperature of 101.5° which disappeared on a limited diet castor oil and enemas. Began at this time to flex the left leg on abdomen and would keep it in that position for some time. Slight movement began to appear in right leg. Arm and hand motionless except for little finger; little fingers tightly clenched in palm, except during sleep. Two or three times has fallen in a stupor, since then there has been gradual improvement. General condition good, baby irritable, more motion in leg and some in arm, fingers not flexed so tightly. Four weeks from onset said first words. Electrical reactions unchanged, no atrophy. Nov. 29th baby could get around in an invalid chair and put foot to floor. Can sit up some, but inclined to fall to right side, face cleared up almost completely. Knows his toys for the first time.

Case 2: Baby B, San Francisco. Began Nov. 24th, baby apparently well the day before. About 4 o'clock in the morning parents noticed baby restless and feverish, gave castor oil in morning. No history of headache, vomiting or delirium. Baby seemed O. K. in the morning. She was sitting in a chair rocking her doll, when she suddenly fell in a convulsion about 10:30. The convulsions lasted about an hour. I saw her at 11:30, she was unconscious, no twitching, no rolling of eyes, no retraction of head or abdomen, no tache cerebral or roering. Pupils moderately dilated, jaws held firmly. She was able to follow with her eyes a lighted match at 3 p. m. At 4 o'clock baby was taken with a convulsive seizure affecting the right side only; lower half of face, arm and leg. These were at the rate of 150 to 200 per minute and lasted till 10:30, eyes O. K. The baby's respirations were normal during previous attack, but during second breathed like a child with acute pneumonia, 75 to 100 per minute. Bowels were moved by enemas and much foul material,

undigested food, such as a whole peanut, and quantities of mucus were voided. Temp. at 11:30 101.5°, during second attack 103°, and at 10:30, when baby became partially conscious 105.5° (rectal); at 10:30 the paralysis was noted and involved lower half of face, arm and leg of right side; next morning paralysis same, no movement in affected parts, reflexes lively, paralysis spastic, no ankle clonus, no strabismus or ptosis, eyes O. K. Baby was cross and cried a great deal. Left arm continually in motion, the principal one being a careful smoothing of coverlet. Temp. 101.5°. Resp. 30, pulse 120. Two days afterwards baby talked, but up to the present date can not say certain words she was accustomed to say. Temp. normal. Arm flexed close to side, fingers clenched, leg straight, passive movements made with some resistance. Paralysis of face clearing up; considerable mucus in stools. Motion began to return Nov. 29th in arms (slight). Friday slight motion in leg, had temp. on Thursday, Nov. 25th, but cleared up with enemas and castor oil. Much foul smelling mucus passed. Dec. 3 baby can sit up, laughs and talks some, leg straight, arm passive, very slight facial paralysis noted when laughing.

The principal points I wish to bring out are: (1) The family histories; (2) The entero colitis as a possible cause; (3) The previous good health of the patient; (4) The suddenness of the attack; (5) The generalized convulsion followed by uuilateral; (6) The distribution and character of the paralysis; (7) Retaiued reflexes; (8) Temp. curve; (9) Aphasia; (10) Absence of later convulsions; (11) The quick return of both patients to a fair state of general health. We may speculate as to the cause and character of the lesion.

In case No. 1 it was probably a meningeal hemorrhage; the irritative symptoms, progression of paralysis from leg to face, bulging of fontanelle during attack, speak strongly in favor of it, and our knowledge that these hemorrhages are usually meningeal seldom cerebral. In case No. 2, the absence of any involvement of upper part of face or eyes might lead us to class it as a capsular hemorrhage. Even here the irritative movements were pronounced and spoke for a cortical lesion. It may be possible that the eyes and upper part of head have a double nerve supply, which would accouut for their uon-involvement. The previous good health of both babies, the suddenness of the attack and paralysis with quick general recovery, are against any acute infections, encephalitis or the poliocephatis superior, analogous acute anterior and poliomyelitis. The association of au entero colitis is suggestive in both cases as a possible cause, producing the generalized convulsions, which in turn were responsible for the meningeal or capsular hemorrhages. We must not forget the importaut part hereditary influences may have played, especially the leutic history in Case 1. I have purposely omitted the prognosis, the subsequent contractures, mental deterioration, epilepses, etc., or any allusion to treatment in the way of operative procedures, etc., that have receutly been brought forward again by Cushing.

DISCUSSION.

Dr. Evans: I want to thank Dr. Hill for presenting these cases to us. It is rather a difficult thiug to say anything further on them. The question of hemiplegia is the first thing that occurs to me, and would seem to be the greatest, particularly in the sudden onset of the convulsions.

The question of cerebro thrombosis, of course, comes up, and I particularly call attention to the fact that cerebro thrombosis in children is rather frequent. I don't know very much about these so-called primary phlebitis. We are confronted here by the fact that in their previous history nothing suggested the possibilities of a case of thrombosis. I think we ought also to consider the possibilities of lues. It is, of course, quite conceivable tbat there was syphilitic infection, which might have been the cause, but it would seem from the suddenness of the onset, from the character of the attack and from the parts involved, tbat it would more likely be infantile hemiplegia, from the seizures and convulsions involving the facts of the case covering the retarding area.

Dr. Porter: I would join with Dr. Evans in thanking Dr. Hill and congratulating him on the way he has presented these cases. I don't think Dr. Hill has laid sufficient stress upon the colitis, which only seems the two points in common. In the first case, Dr. Evans has said we must lay a great deal of stress upon the lues in the family. We have sufficient evidence from experieuce to protect us in the belief in cases of coutiuuous euteritis, even though the enteritis might not be extreme. Septic thrombosis would give us thrombosis of phlebotic origiu, and when such matter gives rise to the blocking of vessels or to the kinking of vessels, we have a hemorrhage or thrombosis of the cerebral vessels.

I think Dr. Hill has overlooked the earlier history. It is possible the mother of the child may have been well, and that the paralysis was some evidence so far as the cerebro thrombosis was concerued. The syphilitic thrombosis does not seem probable in a child of that age. It is not at all unusual in children well developed, and in the blood diseases that children have.

Dr. Cooper: I think it is very difficult to pass any opinion about the nature of a case, the history of which you hear and the patient you do not see. It seems to me that the history of the second case bore very strong resemblance to many cases of acute enteritis that have been reported, and many of those cases do occur quite often, just like acute infections. This is a subject which has ouly come to the front in the past two or three years. We have made accurate observations which are exactly parallel with enteritis. This paralysis may be quite extensive, first owing to the fact that the congestion around the priucipally diseased area gives rise to paralysis. When this congestiou passes off, a great deal of paralysis passes off. I cannot say, not having seen the patient, that it does not bear a resemblance to mauy of those cases, which it seems to me are rather difficult to discriminate between, and to say that the last case is a hemiplegia.

Dr. Welty: These two cases are interesting from the standpoint of enteritis. We have the very same symptoms coming from the cerebro complications from the ear. In all the cases of cerebro thrombosis you have a characteristic temperature, but wide variations, chills or fever and sweats. There is only one case on record in which the cerebro thrombosis had such a history. I have found another one that I will report very shortly which is a very unusual affair. In regard to the meningitis or brain abscess. The brain abscess is, of course, ruled out. We had an edema around the ear which made an acute discharge from the ear at the same time. In a case of meningitis you may be mistaken in your diagnosis. You do not cure cases of meningitis; you hope to strike a case of brain abscess in a diagnosis of meningitis.

Dr. Hill: In regard to what Dr. Porter said, I believe I stated in the last part of my cases that possibly or probably it was encephalitis. The meningeal possibilities in both cases caused a generalized convulsion, and the generalized convulsion might possibly have caused the hemorrhage.

Now, I come to the definite statement as to the cause. I said it was probably a meningeal hemorrhage. We know in children, especially, it is very difficult to determine what this hemorrhage would do. In the first place, there have been many reported cases, and most of them have been reported at autopsies, and they were meningeal hemorrhages. Some may not have been.

There was au identical case with the last one reported in the *London Lancet*. Now, if you remember, in acute infectious diseases, hemorrhages occur, and if I remember rightly Holt reports a case of this kind.

Now, as regards the acute enteritis, this is not so very recent. Considerable advance has been made since 1897. There is not enough evidence to prove that these cases are acute enteritis. In fact, the majority that have been autopsied have been meningeal

hemorrhage, and in those cases reported they were similar to those of acute enteritis.

Both these babies had a normal temperature; the second was improving on the third day, and an acute infectious disease would hardly clear up like that in three days. In fact, most of them have a great deal of stupor and coma. I have reported these as probable hemorrhages, and not as definite hemorrhages. I think that hemorrhage under the circumstances fulfills the most conditions. Of course, we have to remember these cases are being now reported, and more and more classed under the acute enteritis, or under different names, which mean the same thing.

Tubercular Meningitis by Dr. Bine: The following case is reported in order to emphasize some of the difficulties encountered in the diagnosis of a disease so well known as tubercular meningitis, and to show how, at times, our so-called laboratory aids to diagnosis may complicate instead of simplifying matters, especially if one vary the slightest bit from absolute perfection in technic.

The patient, a boy of 17, was admitted to the Polyclinic ward at the County Hospital on November 22, 1903, late in the afternoon. I examined him for the first time the next morning, and saw him daily until he died.

They gave the following history: Had felt poorly for a week previous, slight headache. While at night school, November 21st, had a chill, also next morning, i. e. day of admission to hospital. Now has headache, frontal and temporal especially, also back of neck. Never any coughing, vomiting, no pain in chest, bowels regular. Has worked for the last one and one-half years as machinist's helper. Outside of occasional colds, has never been ill. Parents and three brothers in good health.

At first examination I was particularly struck by the boy's position in bed. Usually on his back or right side; his legs were always slightly drawn up; his head was always slightly drawn back. Expression one of languor, answers questions slowly. Cheeks flushed. Mouth always open. Pupils equal, react slowly. Eyelids reddened. Tongue dry, cracked and covered by dirty brown coating. Pulse regular, good volume and tension. Heart enlarged a bit to left; a mitral systolic murmur with accentuation of second sound at pulmonic area. There was also a question as to the presence of a mitral presystolic. The right lung showed absolutely no movement with breathing; apex was dull down to second rib; from here to base resonance impaired anteriorly; posteriorly the whole right side was relatively dull. A few crepitations were heard over right side. V. R. and breath sounds slightly increased. Left lung normal. Abdomen tympanitic, a bit retracted, no rose spots. Liver and spleen apparently not enlarged, but tympany of abdomen and tenderness prevent palpation being satisfactorily carried out. No tenderness along spine or over skull; flexion of head on chest somewhat painful. Enlarged submaxillary and cervical glands; not tender, firm. All reflexes normal. Genital tract normal. Trace of albumin in urine, no Diazo. W. B. C. 9400 with polymorphonuclears 90 per cent. No Widal.

On the 24th, patient was very restless, the only new signs were lateral nystagmus, a slight weakening of l. external rectus and a dilatation of left pupil.

(*To be continued.*)

CALIFORNIA ACADEMY OF MEDICINE.

The regular meeting was held September 26, 1905, Dr. D. W. Montgomery being in the chair.

Palpable Ulnar Nerves. Dr. C. M. Cooper demonstrated a patient with a chronic inflammation of the joints, multiple glandular enlargements, and enlargement of the spleen. The ulnar nerves of this patient were quite thickened. Dr. Cooper believes that such thickening is far from uncommon and that it is most apt to occur in patients who have chronic joint affections of the hands. This fact should be borne in mind when enlargement of the peripheral nerves is found in suspected cases of leprosy.

Protection from the X-ray. Dr. C. M. Cooper enumerated some of the dangers associated with continued exposure to the action of the X-ray, such as skin eruptions, burns, carcinoma, sterility, neurasthenic symptoms, etc. As yet we know comparatively little of the remote effects of such exposures and it is quite possible that in time degenerative changes in the tissues may result. The person who is using the X-ray continually should, therefore, take every possible precaution to protect himself from such deleterious effects. Dr. Cooper does this by placing himself in a leaden compartment and making all observations by means of mirrors. One mirror reflects a floroscopic image of a known test object and in this manner the penetrating quality of the rays can be estimated; another mirror, by reflecting the tube itself, indicates the general character of the light. In this manner the operator is not exposed at all to the direct action of the light while he is making a photograph.

Dr. B. F. Carpenter stated that he knew of an X-ray operator who had no active spermatozoa in his semen so long as he was using this light regularly. Active spermatozoa, however, reappeared after he discontinued its use.

Underlying Conditions in Erythema Multiforme Exudativa. Dr. P. K. Brown reported two cases of erythema multiforme exudativa, which both showed lesions in organs other than the skin. The first patient was a child, six and a half years old, who had had attacks of tonsillitis, with endocarditis, over a period of four years. In December, 1904, patient had ten days of epigastric pain and following this, some fever and a punctate eruption over the trunk, shoulders and thighs. There was general glandular enlargement, the heart was more irregular than usual, and the murmur was louder. The urine contained albumen, red blood cells and a few casts. On the third day the patient suffered from pains in the ankle joints. Desquamation began on the fourth day and lasted six weeks. The affected areas desquamated entirely, even the nails taking part in the process.

The second patient was the same age. During the first attack, in January, 1904, the fever reached 104.2° and lasted three or four days. The first eruption appeared early, covered the whole body and was scarletiniform in character, except on the shins, where it was more blotchy and irregular. General glandular enlargement. Eleven days after the onset, multiple miliary hemorrhages appeared over the body and these were accompanied by hemorrhages from the mucous membranes and by signs of pericarditis. On certain parts of the body areas of circumscribed edema were visible. Desquamation lasted about two weeks. Blood cultures were negative. There was a marked anemia—hemoglobin 28% and red cells 1,700,00—and a relative increase in the mononuclear leukocytes. The child made a slow, but uninterrupted recovery. In the year and a half that have elapsed since that time the patient has had eight or ten similar attacks, some of which have been very light and only one accompanied by extensive eruption and desquamation. In the beginning of the attacks undigested food is frequently found in feces and the breath often has a heavy odor.

Dr. Howard Morrow stated that typical erythema multiforme desquamativa runs a course that is different from these described by the speaker, and he would be inclined to diagnose the cases reported as desquamative scarletiniform erythema.

Dr. D. W. Montgomery has seen very few cases of erythema multiforme with severe internal lesions, other than joint pains that do not yield to the salicylates.

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At the regular meeting, held October 24, 1905, Dr. H. M. Sherman was in the chair.

Cholecystectomy as an Initial Procedure. Dr. T. W. Huntington reported the history of a patient who had had repeated attacks of biliary colic, accompanied at times by jaundice, fever, and clay-colored stools. At operation, after a particularly violent attack, the gall bladder was found to contain 16 large stones, together with about 4 oz. of thick, greyish, opaque fluid. No stone within the common duct could be found. The

gall bladder was drained and the drainage tube removed on the fifth day. The discharge of bile through the fistula continued, however. A few days after the operation the stools became absolutely clay-colored and remained so. Seven weeks after the operation the abdomen was again opened. No cause for the common duct obstruction could be found except an enlarged, hard head of the pancreas, probably due to a chronic pancreatitis. A cholecyst-enterostomy was then performed, using a linen thread to unite the lateral surfaces of the gall bladder to the duodenum, after the manner of McGraw, and fortifying with a row of Lembert sutures. At subsequent operations it was necessary to reopen this anastomosis with a knife after dilating the sinus and finally, to close the sinus itself. Since then the patient's recovery has been rapid and complete.

Cholecystectomy, as a deliberately planned initial procedure is proper (1) in extensive trauma of the viscus, where suture is impossible; (2) when there is a long standing and impermeable stricture of the duct; (3) in gangrene of the gall bladder, and (4) in malignant disease of the gall bladder. It is probably better not to leave in a contracted gall bladder following chronic cystitis in most cases, (1) because there may be, as in the present case, an undiagnosed obstruction in the common duct, which could later be relieved by performing a cholecyst-enterostomy, and (2) because the drainage afforded through the cholecystostomy wound may be of direct value in relieving an infected biliary system.

Dr. B. MacMonagle stated that there were other possible indications for a primary cholecystectomy. Dr. Clinton Cushing frequently performed this operation with most satisfactory results in most cases. In cholecystitis we have an infected organ, and if we can be certain that the common duct is open it might be justifiable to do a cholecystectomy and so remove the main seat of infection. Yet it is hard to exclude stones in the hepatic ducts which may later cause a common duct obstruction and so, as a general rule, it is better to leave the gall bladder in at the operation.

Dr. J. H. Barbat believed the gall bladder should be removed only when the cystic duct was absolutely occluded and a cholecystectomy would not drain the bile ducts.

Dr. T. W. Huntington said that it is difficult to determine whether the closure of the cystic duct is a temporary or a permanent one, and that a stone in the common or hepatic ducts can never be absolutely excluded.

Pseudo-tuberculosis of the Peritoneum. Dr. C. M. Cooper stated that of the many causes that may give rise to structures resembling true tubercles, the most important, so far as the peritoneal cavity is concerned, are animal parasitic structures and foreign bodies. Tenia eggs and the hooklets of the echinococcus have both produced in the abdominal cavity a condition that resembles tuberculosis and can be distinguished from it only by finding the causative agents within the small nodules. Cholesterin crystals from a ruptured ovarian cyst and pieces of sponge that had been left in the peritoneal cavity at operation, have produced similar conditions. Finally, the foreign bodies may be food particles that have reached the peritoneal cavity through a perforated gastric ulcer, as in Hanau's case, and the one here reported.

Middle aged woman, whose illness had begun suddenly six weeks before with pain in the lower abdomen. No fever, vomiting, or intestinal obstruction. Pulse rapid and feeble. Marked aversion to food. Abdomen somewhat distended with slight tenderness over its lower portion. Free fluid could be demonstrated within the abdomen. Dullness posteriorly over the ascending colon. Leukocytes 12,000. At operation a large quantity of brownish fluid was evacuated from the peritoneal cavity and the intestines were seen to be studded with innumerable miliary tubercles. At autopsy a post-colonic collection of pus was found originating from a perforated gastric ulcer. Microscopical examination showed that the peritoneal nodules contained no tubercle bacilli, but did contain small food particles that had evidently escaped from the stomach through the perforated ulcer.

A. W. HEWLETT.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

The regular meeting of the society was held on Thursday, November 16th, in the rooms of the San Francisco Polyclinic, the president, Dr. K. Pischel, in the chair.

The scientific program follows:

Drs. K. Pischel and V. Lucchetti reported a case of magnet extraction of a foreign body from the eye. The patient was a young man 16 years of age. While hammering a rivet something flew into the left eye. The doctor saw the patient four days after the injury and noticed a black spot in the ocular conjunctiva downward and outward from the limbus, no scar being visible. With the opthalmoscope the foreign body was seen embedded in the retina two diameters below the disc. An incision was made with a cataract knife in the outer lower quadrant of the bulb one cm. from the limbus and the foreign body was extracted with the magnet. Field of vision remained good with the exception of a corresponding scotoma. The next day vision was 5-60 and the retina was cloudy and infiltrated where the foreign body had lodged. Patient was advised to go to a hospital, but refused. Three days later vision was 5-15. He returned after four days with the history of having swept the house, and since then the sight had become markedly blurred. Vision, fingers in 50 cm. The disc and surrounding retina were hidden by an extensive hemorrhage. Patient went to a hospital, and subconjunctival saline injections and pilocarpine sweats were ordered, but the sight did not improve much.

Dr. W. F. Southard presented two cases of interstitial keratitis, one acquired and the other inherited. He saw the patient with the inherited keratitis for the first time in 1903, both eyes being affected to such an extent that the patient could not walk about alone. The mother said that when the patient was 9 months old she had enlarged cervical glands, which suppurated. The teeth decayed as soon as they appeared. At three years of age she had a severe attack of whooping cough, with facial spasm, followed by facial paralysis, this condition still remaining. The eyes were inflamed, but rapidly cleared up. When patient was brought both corneæ showed a number of interstitial opacities. The teeth were not typically Hutchinson's, the arch of palate was deep, the membrana tympani on right side showed some sclerosis. The irides were paralyzed from an old iritis. Dionin was used, and the opacities at once began to clear up, the central portion being the first to become transparent.

The second case was one of the acquired class, the findings being the same as in the former case. This patient received KI in addition to the dionin, and the action was more marked than in the preceding case.

Dr. Southard also showed another case with the following history: Patient is a man 62 years of age, had a slight trouble with his throat four years ago, with some disturbance of speech. He was treated for a year and then a polypus was removed from the cords, which the microscope showed to be sarcomatous. Throat got apparently well until three months ago, when he noticed some difficulty in swallowing. Never has had pain. Cervical glands enlarged only within the past three months. The growth in the larynx is very large, involving the right side of the epiglottis and pushing it to the left, leaving a small opening through which the cords can be seen. The

mass is somewhat lobulated. Never has had any hemorrhage and no pain on palpation or swallowing, and but a slight change in his voice. Dr. Southard could not say from the appearance of the growth whether it was tuberculous, sarcomatous or specific, and as the patient was receiving KI in large doses he wished to know how long he was justified in continuing this treatment before removing a portion for microscopical examination. If it was sarcoma, then the delay would be injurious. Patient denies a history of syphilis. Dr. Southard considers it as sarcomatous.

Dr. C. F. Welty considers that it is without question a sarcoma, and bases this diagnosis on the history of four years' duration and his age. He excludes tuberculosis, as the man's physical condition is good and he could not have had a tubercular larynx this length of time without ulcerations. He considers it a sarcoma and not carcinomatous, on account of the lobules, the rapid growth with absence of pain and the patient's age.

Dr. W. S. Franklin said that he judged it to be malignant growth, owing to the patient's age, the loss of weight, the enlarged glands, the appearance of the tumor and the history. He wished to see an energetic anti-syphilitic treatment given, as that disease can simulate practically all clinical conditions, and should be positively excluded.

Dr. George H. Powers presented a case of a man 60 years of age, who was struck in the right eye with a foreign body. The doctor saw the patient three days after the accident. There was marked chemosis, no reflex; vision, could barely count fingers. Pain was intense. An X-ray photo showed the foreign body in the sclera and the Haab magnet caused him pain, and patient felt something move within the eye. An incision was made under cocain and the bit of steel removed with the Hirschberg magnet. The next day the lens was clear, vitreous cloudy, with a yellowish mass near the ciliary body which seemed to move.

Dr. Powers presented another case where the patient had received a blow on the eye, but was sure that nothing had entered it. The X-ray showed a foreign body on the floor of the eye. An incision was made in the cornea and a piece of steel removed. Eye cleared up without reaction and patient can count fingers on the temporal side 4 m. from the eye.

Dr. Powers showed the boy who had been operated for convergent strabismus by the Pana's method; also a man with a peculiar stellate shaped blackish detachment of the retina which had the appearance of a subretinal hemorrhage.

Dr. C. S. G. Nagel, speaking of the latter case, said: "From my examination of this patient tonight I have come to the conclusion that it is a vitreous hemorrhage. There is good projection, physiologically normal tension and equal in both eyes."

Dr. George Brady presented the following cases: The first case which I present supplements Dr. Southard's case, and although suggestive of central interstitial keratitis, is one of central infiltration following herpetic ulceration. It shows a deeper yellowish infiltrate of the middle layers overlapped by a wider nebula of infiltration of the superficial layer of the cornea. The second case simply shows a marked improvement in a case of thrombosis of the central retinal vein after four months of mixed treatment. Vision is now 20-100. Then it was one finger in two feet. The third case, probably leutic in origin, shows marked peri-vasculitis, with central pigmented choroiditis of the right retina. Marked temporal pallor of disc and beginning organization of a cottony tuft of exudate overlying the papilla. Vision in this eye 10-100. Left eye has 20-50 vision, and shows a large flame like canary-colored atropic area which has just escaped the fovea. The papilla shows a smaller tuft than that of the right eye, but presents the same pallor. Diagnosis: Leutic central retina choroiditis, with the ascending atrophy of the nerves.

W. SCOTT FRANKLIN, Secretary.

COUNTY SOCIETIES.

Monterey County.

The Monterey County Medical Society held its annual meeting on December 2d, at the office of Dr. E. K. Abbott, Monterey.

The evening was devoted to a general discussion of the professional situation in the county and to the advisability of incorporating the society. It was decided to arrange for incorporation as soon as possible. The election for officers resulted in the selection of the following:

President, Dr. John Parker of Salinas; vice-president, E. K. Abbott of Monterey; secretary, Dr. U. E. Richardson of Salinas; treasurer, Dr. D. Brumwell of King City; censor, Dr. A. M. Ritchie of Pacific Grove; delegate to the State Society, Dr. D. Brumwell; alternates, Drs. T. C. Edwards and U. E. Richardson.

The next meeting will be held at Pacific Grove on January 6th.

Napa County.

The Napa County Society met at 4 o'clock on the afternoon of December 11th for the purpose of discussing the situation in regard to lodge and contract practice. Some time ago the members of the County Society passed resolutions condemning this form of practice, and these resolutions were signed by practically every physician in the county. It subsequently appeared that a member of the society had not abided by the resolutions which he had signed, but had accepted the offer to do this contract work for one or two of the lodges during the coming year. He was invited to attend the meeting, but refused to do so, and after a general discussion on the subject, his name was dropped from the role of members. The secretary of the State Society attended the meeting on the invitation of the County Society and discussed the condition of the medical profession and plans for organization. After the meeting of the society a very delightful banquet was given, and some leading members of the ministry and bar were guests.

Orange County.

The Orange County Medical Association held its regular monthly meeting in its rooms in Santa Ana, December 5th, with 14 members present. Dr. Dryer reported a case of "Cyclops" and exhibited photographs.

Dr. Berneike read a very able paper, subject, "The Physician of the Future; A Forecast." The doctor pictured the physician of the future, a happy man, without care or controversy, no lack of patients and no competition except of intellect; an integral part of a great industrial co-operative government; certainly an ideal condition, if the doctor's beautiful picture could be realized.

H. S. GORDON, Secretary.

Placer County.

The Placer County Medical Society held a special business meeting at the office of its secretary at Auburn on Friday last. Dr. J. T. Jones of Grass Valley was acting president, in the event of the death of the president, Dr. T. M. Todd.

The meeting was called in order to meet the requirements of the State Society, which desires the county societies to elect officers and collect dues by the first of January.

The meeting was called to order by the acting president, who expressed deep sorrow at the death of Dr. Todd, which is a great loss to the society and to the community at large. Dr. Rooney moved that a resolution be drawn up and placed on the minutes of the society in memorial of our late president.

Dr. Schnabel of New Castle was instructed by the acting president to draw up the memorial.

The secretary then read his report, in which he stated that the society was in a flourishing condition, that two members had dropped out and two more had come in. Taking it all in all the society had been a great success, that this was due, in a large measure, to the valuable help given to the secretary by Dr. Philip Mills Jones of San Francisco, to whom the secretary wishes to express his most sincere thanks. Several important communications from the state secretary were read, which were acknowledged and discussed.

A resolution from the Sonoma County Society was read which brought forth much comment and discussion.

Two new members were elected, namely; Dr. E. Jamieson of Grass Valley and Dr. B. Mardis of San Francisco.

The election of officers was next in order and the following were installed for the ensuing year: President, J. T. Jones, Grass Valley; vice-president, W. S. Hickman, Georgetown; secretary, J. H. Mules, East Auburn; treasurer, R. A. Peers, Colfax.

There being no more business to transact the meeting adjourned.

J. H. MULES, Secretary.

Riverside County.

The Riverside County Medical Society held its regular monthly meeting on Monday evening, December 11th, at the home of Dr. Van Zwalenburg. There were present 12 members and three invited guests.

The regular business was dispatched with unusual celerity, as we were all anxious to hear Dr. Woods Hutchinson, who was to read the paper of the evening, "Some Factors in the Development of Tuberculosis." The doctor brought out some exceedingly interesting and important conclusions, the result of investigations made by himself into comparative measurements of many chest walls and hearts. A free discussion of the essential points ensued, during which he kindly illustrated his method of procedure.

Dr. Van Zwalenburg reported several cases of "heart disease" and described his method of treatment. Several of the physicians then gave their treatment in such cases.

We were then invited to the dining-room to partake of the delicious refreshments which Mrs. Van Zwalenburg had so kindly provided. As a conclusion a vote of thanks was given to Dr. and Mrs. Van Zwalenburg for the splendid manner in which we had been entertained. The thanks of the society were also presented to Dr. Hutchinson for his very instructive paper.

SAM'L OUTWATER, Secretary.

San Francisco County.

At the regular meeting for December, Dr. Rixford, the president, in the chair, Dr. Thos. W. Huntington presented a patient upon whom he had operated, trephining and tunnelling into the head of the femur for supposed beginning hip-joint disease, and read a paper upon this operation. It was extensively discussed by several members, all of whom seemed to differ with the author as to the value or advisability of the operation in the condition named. Dr. Taylor, Dean of the Hastings College of Law, and an honorary member of the society, very ably presented some notes relating to the legal rights and obligations of physicians. At this meeting the officers presented their reports and the society elected twenty-one directors under the new by-laws, who will elect the officers of the society for the coming year and are to transact all business. The directors elected were as follows: Geo. Blumer, P. K. Brown, Harold Brunn, F. B. Carpenter, W. F. Cheney, C. M. Cooper, Geo. H. Evans, Henry Gibbons Jr., S. J. Hunkin, W. Watt Kerr, C. G. Levison, Howard Morrow, Wm. Ophuls, H. A. L. Ryfkogel, Dudley Tait, Wallace I. Terry, W. S. Thorne, H. M. Sherman, Philip M. Jones, J. Henry Barbat, Emmet Rixford.

The Board of Directors met in the office of the State Society, Y. M. C. A. Building, Tuesday evening, December 19th, and elected the following officers of the society for the ensuing year: President, Wallace I. Terry; first vice-president, Henry Gibbons Jr.; second vice-president, Harold Brunn; treasurer, Emmet Rixford; secretary, H. E. Alderson.

San Joaquin County.

The regular monthly meeting of the San Joaquin County Medical Society was held in the Alliance Building, Friday, November 24th, President R. B. Knight in the chair. Members present: Drs. R. B. Knight, W. M. S. Beede, E. A. Arthur, Taylor, S. B. Davis, Minerva Goodman, A. W. Hoisholt, J. D. Dameron, H. E. Sanderson, Margaret H. Smyth, S. E. Latta, J. P. Hull and Barton J. Powell.

The following nominations were made: Dr. C. R. Harry for president; Dr. W. J. Young, for first vice-president; Dr. J. P. Hull for second vice-president; Dr. Barton J. Powell for secretary and treasurer; Drs. W. M. S. Beede and Barton J. Powell as delegates to the State Society; Drs. E. A. Arthur and J. P. Hull as alternates.

After the nominations Dr. Philip Mills Jones addressed the society on "The Advantages of Harmony and Organization." The lecture was well received and it is to be hoped that Dr. Jones will soon be with us again. A number of the suggestions made will be taken up by the society and discussed. All the doctors present were converted to the new idea and have promised to help educate those members who were so unfortunate as to miss the lecture. The society adjourned to meet with Dr. J. P. Hull the last Friday in December.

BARTON J. POWELL, Secretary.

Tehama County.

On the invitation of the secretary of the State Society, the physicians of Tehama County met at Red Bluff on the 6th of December and organized the Tehama County Medical Society. The following physicians were present: Drs. Frank Bailey, Jas. Cameron, Frank Doane, John Fife, Jos. Fife, John Owen, Albert Tarter, Jacob West and Harris Zimmerman. The officers for the ensuing year were elected as follows: Jacob West, president; Frank Bailey, vice-president; Frank Doane, secretary and treasurer.

Dr. Jones spoke on the value and necessity of organization, and placed before the physicians present the plan and recommendations supported by the Committee on Organization of the American Medical Association. A special committee was appointed by the president to carefully look over the constitution and by-laws and to consider the advisability of holding weekly meetings for scientific work.

Ventura County.

The regular quarterly meeting of the Ventura County Medical Society was held at the office of Dr. W. R. Livingston, Oxnard, on December 11th at 8 p. m.

Dr. A. A. Maulhardt of Oxnard read an essay on "Croupous Pneumonia." Dr. Maulhardt's treatment of his subject embraced every phase of the disease, in which he cited the views and experience of the latest authorities outlining its diagnosis, treatment,

prognosis, etc., and concluding his discourse with an account of many cases occurring in his own practice.

A discussion by all the members present then followed, each having had a large experience with this very formidable and prevalent malady.

Secretary Teubner then read several important communications from Dr. Philip Mills Jones, Secretary of the State Medical Society, which were postponed for action upon them pending the expected visit of Dr. Jones in the near future.

Election of officers for 1906 resulted as follows: President, Dr. T. E. Cunnane, Ventura; vice-president, Dr. A. A. Maulhardt, Oxnard; secretary and treasurer, Dr. C. Teubner, Saticoy.

By the unanimous vote of the society R. D. Potts, M. D., of Oxnard was elected a member.

Letters of regret were received from members unable to be present.

Dr. Love's absence was especially commented upon, and hopes for his speedy recovery were expressed by all.

Dr. E. A. Vogt of El Rio sent in his resignation, assigning as his reason the fact of having attained the age of 70 years, making it very difficult to attend meetings at night. The society expressed its regret at losing so valued a member, and he was informed to that effect by letter.

At the conclusion of the business of the society, the members repaired to the residence of Dr. Livingston, where the members and their wives were invited by their gracious hostess, Mrs. W. R. Livingston, to partake of a very dainty collation, to which all did ample justice.

A vote of thanks was extended to both host and hostess by all the guests present.

CHARLES TEUBNER, Secretary.

COMMUNICATION.

A Reply to Dr. Pettey.

To the Editor of the STATE JOURNAL: Referring to an article in the December JOURNAL by Dr. Pettey regarding the "Extravagant claims made for hyoscine in the Treatment of the Drug Addictions" and severely criticizing me and condemning my method of using hyoscine, I beg to state that his criticism is neither fair, just nor honest to me, for he selects only a portion of my article for criticism and seems to infer that it is a sample of the whole, which it is not. Anyone who has read the article referred to will see that in cases one and two I described the treatment in detail, showing in one case the small dose of hyoscine used with the long intervals between, where results were thoroughly satisfactory; the other case showed the large doses of hyoscine which were necessary to get the patient under its influence, and when secured, just enough hyoscine was given to keep up its action, showing clearly some knowledge of its administration.

Dr. Pettey "shudders" at the doses sometimes necessary, but at the same time in an article written by him he reports giving a patient one-twenty-fifth of a grain of hyoscine every half hour until the patient was under its action, which amount evidently was necessary as well as safe or he would not have administered it. It is the same with hyoscine as with all other drugs; it is the *action* desired and *not the dose*, or, in other words, give the hyoscine for its physiological action, not for any stated dose, which, if recognized by the one giving it, will never do any harm.

As to cases three and four which Dr. Pettey selects out of the entire article for criticism, I beg to state that as this article was read before the Medical Society of the State of California at Riverside, and my time was limited to ten minutes, they were necessarily abbreviated to save time, and the three days referred to merely had reference to the time of administering the hyoscine and not to the period of cure. Right here it might be well to state that the paper was favorably received by the society, was passed upon by the publication committee, and no "extravagant claims" were detected, as suggested by Dr. Pettey. As it is well known by anyone using this method of treatment, from two to four weeks is necessary for a patient to remain in the sanitarium, depending entirely upon the individual's recuperative powers.

As to the "miraculous cures," no such claim was ever made by me, and a reading of my article in its entirety will show this also. The features of elimination to which Dr. Pettey lays so much stress were clearly set forth and emphasized in my paper.

Dr. Pettey implies that I am a recent convert to the use of hyoscine and consequently unfamiliar with its use and action, therefore incompetent to handle such cases. I would simply state that I treated my first case with hyoscine in March of 1902 and reported the case in the *Therapeutic Gazette* in August 1902, since which time I have treated several hundred cases; "perhaps not as many as Dr. Pettey," but sufficient, however, to at least give me the right to an opinion.

I do not and never have claimed to be a "three-day-cure man," as intimated by the critic, and in the several articles read by me before medical societies I have never made any such pretentions nor any claim for originality, but have always given Dr. M. K. Lott of Cameron, Texas, full credit for priority in giving this treatment to the medical world, he having read a paper before the Brazos Valley Medical Society in May of 1901, his paper appearing in print in November 1901. The fact of Dr. Lott having read his paper before a body of medical men in convention assembled five months before any article appeared in print on this subject certainly would entitle him to the honor of first bringing it to the notice of the professional world, the claims of others for priority notwithstanding.

The method I employ is being successfully used by such men as Hobart Amory Hare, Professor of Materia Medica and Therapeutics at Jefferson Medical College, who says in an article in *Medical News*, June 7, 1902:

> First, a patient can take massive doses for days at a time, as much as ¼ grain each day, hypodermatically, with no evil effect. Second, they suffer very slightly, if at all, from the immediate withdrawal of the morphin; and third, and more surprising, a desire for the drug is largely, if not entirely, dissipated after a few days. His results were so good, he says, that he will have no hesitation in applying it to others.
>
> Howard C. Russel, *New York Medical Record*, November 29, 1902, says during the whole time the patient was under the treatment he suffered no well-defined pain; in fact, there was very little evidence at any time that he was even uncomfortable. In spite of the well-known tendency of these patients to relapse, he thinks this man is permanently cured, as he seems to be entirely rid of the desire for the drug and devoutly thankful for his escape. This patient was using sixty grains of morphin daily for a period of five years. S. Ormand Goldan reports in *New York Medical Journal*, January 3, 1903, as follows: In the proper use of hyoscin in morphin habituation we possess a safe, certain, and painless method of treatment. W. E. Nichols, in *Winconsin Medical Drug Journal*, speaking about the drug habits, suggests as a cure for the alcohol, opium and cocain habits the careful use of hyoscin hydrobromate.
>
> Dr. Lott mentions that he has used this treatment in more than two hundred cases without any evidence of danger or unnecessary anxiety during the treatment. In the *Therapeutic Gazette*, January, 1902, Hare has an editorial commending the use of hyoscin in these cases. In the *Medical News*, November 29, 1902, Rosenberger reports a morphin habitue of eleven years' standing, who used from thirty to sixty grains daily, and notwithstanding he had serious kidney trouble, he gave him 1-100 grain hyoscin hourly for 108 hours. Eleven months after the treatment he reports the patient as entirely cured.

Dr. J. B. Rosson of Tulare has used it in the same manner with success. Dr. Edwards of Salinas also has used it with satisfactory results. Considering the personal success I have had and the endorsement of such men as mentioned above, it is ill becoming Dr. Pettey to make such unfair criticism of an article that was entirely honest in its preparation.

Respectfully,

R. E. BERING, M. D.

Tulare, Cal., December 12, 1905.

PUBLICATIONS.

A Practical Treatise on Sexual Disorders of the Male and Female.—By ROBERT W. TAYLOR, A. M., M. D. formerly Clinical Professor of Genito-Urinary Diseases at the College of Physicians and Surgeons (Columbia University), New York; Consulting Genito-Urinary Surgeon to Bellevue and the City (Charity) Hospitals, New York. Third edition, thoroughly revised. Lea Brothers & Co., New York and Philadelphia, 1905.

The scientific study of sexual disorders seems to have been much neglected in this country, judging from the paucity of American literature upon the subject. Indeed, until the appearance of the first edition of Professor Taylor's work several years ago, there had been few attempts in this country to systematically present this important subject in book form. In Europe, on the other hand, these affections have been much more closely investigated by German and French writers.

Until a few years ago the whole basis of medical knowledge of sexual disorders might be summed up in the recital of various more or less ill-defined symptoms, generally included under the phrase "loss of manhood," such as sexual debility and irritability, seminal losses, and so on. This has been so unsatisfactory and unscientific that investigators have recognized the importance of acquiring a more intimate knowledge of the structure and functions of the urinary and sexual apparatus for a clearer understanding of the morbid processes which affect this system.

Professor Taylor has endeavored to present this phase of the subject as fully as possible in this edition. While it has been found inadvisable to depart from the traditional classification of some forms of sexual disorders the underlying anatomical and physiological conditions have always been maintained in the foreground.

The greater part of the work is devoted to a consideration of these diseases as they are found in the male. The subject of impotence in the male is very well discussed, notwithstanding that the arrangement is open to considerable criticism. The section on affections of the seminal vesicles is, on the other hand, disappointing. Sterility in the female is dismissed in less than five pages. The last chapter on "A Peculiar New Growth of the Vulva" does not seem to warrant the peculiar heading which is given to it.

Professor Taylor's book contains much interesting information for the general practitioner, but it is doubtful if it will appeal to those who treat these disorders as specialists. After reading the book the reviewer is left with the impression that some things might have been advantageously left out and others inserted. Another revision may give us a more balanced treatise on a class of disorders which are not very well understood. A. J. L.

A Research upon the Action of Alcohol upon the Circulation.—By HORATIO C. WOOD and DANIEL M. HOYT, University of Pennsylvania. Vol X, Third Memoir of the National Academy of Sciences. Washington, Government Printing Office, 1905.

This very carefully worked out monograph will be of interest as a valuable contribution to the literature on alcohol. The authors' conclusions are stated to be that: "Alcohol does not seriously affect in the normal animal blood pressure; elevates the blood pressure after vasomotor paralysis from action of the cervical cord; increases enormously the rate of the blood flow; directly stimulates the heart; therefore the general action upon the circulation of the moderate dose of alcohol is great increase in the rapidity of the circulation caused by cardiac stimulation, with vascular dilatation due to depression of the vasomotor centers."

The following publications have been received:

Transactions of the Iowa State Medical Society, Fifty-third Annual Session, 1905.

The Diagnostics of Internal Medicine.—By BUTLER. Second revised edition. D. Appleton & Co., 1905.

The book is brought well up to date and is profusely and beautifully illustrated. Most of the subjects are dealt with concisely, and, being aptly illustrated, are quite clear. For the student the work is invaluable.

Some of the subjects are entered into rather too briefly to be of any great value to the physician, except for rapid reference. H. G.

Transactions of the Medical Society of the State of New York for the year 1905; the Ninety-ninth Annual Session.

Transactions of the Thirty-eighth Annual Session of the West Virginia State Medical Association, 1905.

The Physician's Visiting List for 1906. Philadelphia, P. Blakiston's Son & Co.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Anderson, Helen O., from 343 S. Broadway to Bradbury Bldg., Los Angeles. Hrs. 2-5. Austin, S. A., from Laughlin Bldg. to Fay Bldg., Los Angeles. Bayless, H. G., from add. unknown to Angeles Hotel, Los Angeles. Hrs. 11-1 and 3-5.

Beebe, Chas. E., from 2510 Pine st., San Francisco to Woodland, Yolo Co. Brighouse, H. E., from 1436 Market st., San Francisco, to St. Helena Sanitarium, Napa Co.

Chambers, W. J., from Laughlin Blk. to Fay Bldg., Los Angeles. Hrs. 2-4. **Conlan, Francis J. S.,** from 406 Sutter st. to St. Paul Bldg., 293 Geary st., San Francisco. Conrad, Andrew O., from 454 Spring st. to 517 S. Broadway, Los Angeles. **Crabtree, Hezekiah T.,** from Children's Hospital to 590 Sutter st., San Francisco.

Dunton, W. A., from 301 W. 7th st. to Thorpe Bldg., Franklin and Broadway, Los Angeles. Hrs. 1-4 and 7-8.

Eaton, George Lee, from 730 Sutter st. to 218 Stockton st., San Francisco. **Etcheverry, Michael H.,** from 2056 Ellis st. to 406 Sutter st., San Francisco.

Finan, A. P., from add. unknown to Vacaville, Solano Co. **Fricke, Richard,** from 386 Sutter st., San Francisco, to 563 11th st., Oakland. Hrs. 10-12 and 2-4. Fuller, Geo. W., from 2101 Webster st. to 210 Powell st., San Francisco. Hrs. 11-2.

Garceau, Alexander, from 751 Sutter st. to 293 Geary st., San Francisco. Hrs. 11-12 and 2-5. Gregory, C. L., from 312 Ellis to 1234 Castro st., San Francisco. Hrs. 9-12 and 2-4. Griffith, Edgar M., from 1457 Valencia st. to 2500 Glenn st., Los Angeles. Hrs. 1-3.

Hall, Giles S., from 609 S. Main st. to Pacific Electric Bldg., Los Angeles. Hawkes, Wm. J., from 315 S. Broadway to T. Johnson Bldg., Los Angeles. Hogshead, John S., from Laytonville to Ukiah.

Ikenchi, K., from add. unknown to N. E. corner 1st and Main sts., Los Angeles. Hrs. 9-12, 2-4 and 7-9.

Johnston, W. Murray, from 1016 W. Pico st. to Union Trust Bldg., Los Angeles.

Kearney, E. F., from 2109 Estrella st. to 666 Pacific Electric Bldg., Los Angeles. **Kuhlman, Chas. G.,** from 293 Geary st. to 731 Sutter st., San Francisco.

Low, Triumph C., from 302 Stimson Bldg. to 444 Douglas Bldg., Los Angeles. Hrs. 11-1 and 2-4. Le Duc, E. H., from 126 E. 11th st. to 701-2 Braly Bldg., Los Angeles. Hrs. 10-12.

McArthur, Peter R., from 1014 S. Figueroa st. to 959 S. Figueroa st., Los Angeles. **McNeil, H. G.,** from 1315 Figueroa st. to Conservative Life Bldg., Los Angeles. **Miner, Mark L.,** from Sacramento to Upper Lake, Lake Co.

Nast, Henry H., from 257 S. Figueroa st., Los Angeles, to 1095 Market st., San Francisco. **Nourse, B. S.,** from Stirling to 899 Pine st., Hotel Oliver, San Francisco.

Parkhurst, Daniel B., from 444 Douglas Bldg., Los Angeles, to 21 N. Pleasant st., Amherst, Mass. **Pitts, E. H.**, from Knob to 806½ K st., Sacramento. **Plymire, David B.**, from 528 Sutter st. to 406 Sutter st., San Francisco.

Ross, Thos. D., from Ferndale, Humboldt Co., to Mountain View, Santa Clara Co. Richardson, George H., from 450½ S. Broadway to Pacific Electric Bldg., Los Angeles.

Schaller, Walter Frank, from 606 Sutter st. to Dana Bldg., San Francisco. Scheurer, B. W., from 703 Philadelphia st., Whittier, to 111 W. 2d st., Long Beach. **Schmoll, Emile**, from 643 Sutter st. to 645 Sutter st., Pavia Bldg., San Francisco. Hrs. 1:15-3:15. **Siebe, Elizabeth**, from 643 Sutter st. to 406 Central ave., San Francisco. **Simpson, Josiah A.**, from Parrott Bldg. to 369 Sutter st., San Francisco. Hrs. 3-5. **Smith, Kirby B.**, from Haywards ave., San Leandro, to Quilcene, Wash. Hrs. 2-4. **Stafford, Owen Rogers**, from 1147 W. 41st st. to 4210 Vernon ave., Los Angeles.

Tallmon, Susan B., from add. unknown to 1900 Louisa st., Berkeley.

Waiss, Alex. S., from 121 Geary st. to 300 Baker st., San Francisco. **Winslow, Charles E.**, from Bartlett Springs, Lake Co., to San Jacinto, Riverside Co.

Zahn, L. P., from add. unknown to Douglas Bldg., Los Angeles. Hrs. 10-12 and 2-5.

New Names.

Broderick, R. G., 391 Sutter st., San Francisco. Cooper Med. Coll., '92. (C) '92. Hrs. 1-3 P. M.

Bush, Camillus, 391 Sutter st., San Francisco. Johns Hopkins Med. Coll., '02. (C) '02. Hrs. 1:30-3:30 P. M.

Gibbons, Shirwin, Braly Bldg., Los Angeles. Med. School Harvard Univ., '98. (C) '05. Hrs. 10-12 and 2-4 P. M.

McNaught, H. Y., N. E. cor. Lee st., and S. Park ave., Los Angeles. Trinity Univ., Toronto, Canada. '97. (C) '99. Hrs. 10-1 and 3-7 P. M.

Newell, Edward, San Jose. Coll. of P. & S., San Francisco. '05. (C) '05.

Payne, Wm. H., 2126 University ave., Berkeley. Med. Coll. N. W. Univ., Chicago, Ill. '01. (C) '01. Hrs. 2-4 and 7-8 P. M.

White, Carlos M., Lindsay. Rush Med. Coll., Chicago, Ill. '01. (C) '01.

New Members.

Placer Co. Med. Soc.—**Harcourt, L. A.; Jamieson, E.** and **Mardis, B. A.**

San Bernardino Med. Soc.—**Hutchinson, Woods.**

San Diego Med. Soc.—**Gray, A. J.; Hearne, Jas. C.** and **Smith, Q. C.**

San Francisco Med. Soc.—**Bush, Camillus; Smith, Ethan** and **Sumner, Percy.**

Santa Clara Med. Soc.—**Newell, Edward.**

Shasta Co. Med. Soc.—**Bolling, Richard E.; Boynton, C. E.; Stable, Ferdinand** and **Worthington, Geo. B.**

Solano Co. Med. Soc.—**Bond, F. T.; Dempsey, L. E. Finan, A. P.; Hartman, Emily; Hogan, Jas. J. Hucknis, M. L.; Lain, Rachel; Palmer, H. P.; Trull, F. W.** and **Turner, C. E.**

Tehama Co. Med. Soc.—**Bailey, Frank J.; Cameron, James S.; Doane, Frank L.; Fife, Joseph; Tartar, Albert P.; West, Jacob H.,** and **Zimmerman, Harris H.**

Deaths.

Muller, H. E., Oakland.
Mushett, Ida E., Napa.

The Alkaloidal Clinic has Changed Its Name to the American Journal of Clinical Medicine.

With the January issue in preparation, we change the name of *The Alkaloidal Clinic* to one which more fully embodies the scope of our propaganda, namely, *The American Journal of Clinical Medicine.*

We have added to our present strong editorial force (all of which is retained, and with no change in management, or any financial change whatever), Dr. Wm. J. Robinson of New York City, who will conduct a department of "Dermatology and Genito-Urinary Diseases"; Dr. Emory Lanphear of St. Louis, who will conduct a department of "Surgery, Obstetrics and Gynecology," and other departments will be added as arrangements can be made therefor.

THE PUBLISHERS.

IN ALL FEVER CASES

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Dr. Benjamin Lee - - Secretary, Pennsylvania State Board of Health
Dr. Thomas Darlington - - - President, New York Board of Health
Dr. Samuel H. Durgin - - - Health Physician, Boston, Mass.
Dr. Heman Spalding - - - Chief Health Inspector, Chicago, Ill.

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California State Journal of Medicine.

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Telephone, Main 1560.

IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. IV FEBRUARY, 1906. No. 2

NOTICE.

The State Society meets in San Francisco April 17th, 18th and 19th. This will be the Semi-Centennial year and the meeting will be an unusually good one.

LODGE PRACTICE.

Two exceedingly interesting documents from county societies have reached the office during the past month; both relate to "contract" or "lodge" practice. Elsewhere we print a statement of attack and reply, from the local papers of Shasta County; the dignified attitude which that county society has assumed is to be highly commended. It seems but natural that educated physicians should object to being classed as wholesale merchants whose services are to be doled out at 10 cents per head. From Los Angeles came the bulletin of the Los Angeles County Medical Association, giving the program for the month and containing some interesting announcements. (Incidentally, in passing, it is to be noted that the association met every Friday during January; this plan of weekly meetings, advocated by Dr. McCormack, is a most valuable one, and every county society should arrange for such meetings and for more systematic work.) The members of the Los Angeles County Association were, recently, asked to vote upon the question of approval or disapproval of "contract or lodge practice." The result of the ballot is certainly startling. Approximately 150 ballots were cast (not a majority of the membership) and of these, nearly half (about 73) voted in favor of "lodge practice"! To those members of the Los Angeles County Association who voted in favor of this disgraceful class of practice, we earnestly commend a careful study of the Shasta County Society statement, of Dr. McCormack's report on conditions in California, and of the general condition of physicans in a large part of the eastern and central portion of the United States, where the average fee for medical attendance is less than 50 cents—which result has been brought about largely, if not wholly, through "contract and lodge practice."

CRYING EVIL.

We, in California, have always enjoyed a measure of prosperity unknown to many states for a generation or more. As a result of good fees, the people of our state are served by physicians who are probably somewhat above the general average of the whole country, in ability and in up-to-dateness, so to speak. But the handwriting is on the wall, and if we do not take heed to it and be guided by the message given us, before we know it our period of prosperity will have ended, and the people of the state will have less competent physicians; for a poorly supported doctor is not an up-to-date doctor, and sooner or later becomes a danger to the community. How would you like to practice medicine at the rate of 50 cents per office visit, and dispense the medicine? That is the case in some sections of the east and it will be the case here, if the "contract practice" evil is to be allowed to grow and develop unchecked. "Lodge practice" spells hasty, inefficient, cheap work to-day, smaller fees to-morrow, and poverty the day after. Is this the condition of affairs which the medical profession of this state wishes to see brought about? If so, then let us do as we have been doing—nothing. In San Francisco there are two old, large and wealthy "dollar a month" institutions, which, together probably represent an accumulation of approximately two millions of dollars. *Every dollar of this accumulated wealth has been paid out of the pockets of California physicians.* Within the last two years a score of contract societies or companies have been started which undertake to furnish medical or surgical attendance—of a sort—to anyone for the small sum of 50 cents per month. Several so-called "lodges" or "fraternal societies"—notably the Eagles and the Foresters—have spread over the state, have arranged to get their medical service from some physician in each community for a fixed—and generally small—sum, and are growing rich. Every dollar in the treasury of these "lodges" is paid out of the pockets of the physicians in our state. In the long run, however, it is the people who suffer the most, for they receive just about the sort of medical attendance that they pay for, when they "go up against" this lodge practice game.

UNITY IN NEW YORK.

The twenty-three years' war is over and the angel of peace has settled upon medical New York. The Medical Society of the State of New York has absorbed the New York State Medical Association, the union has been declared legally accomplished and the House of Delegates of the united body has met and transacted its preliminary business. The new organization has been recognized as the New York member of the American Medical Association, and as such will receive its first recognition in the House of Delegates of the A. M. A. at Boston next June.

SMALL ERRORS.

A very slight typographical error may make a lot of difference in what is meant, and may create considerable trouble. The omission of the word "not" from the seventh commandment, in an early edition of the Bible, resulted in the arrest, imprisonment and fine of the printers, and the destruction of all but seven copies of the edition. All this is apropos of an error that occurred in the advertisement of the Oakland College of Medicine and Surgery, about four months ago, and which error was uncorrected in three issues of the JOURNAL. The mistake was noted in the office, but through what has been called the "total depravity of inanimate objects," it slipped through again and again. It was only the placing of a "6" for a "2" in the last line where the graduation fee was erroneously stated to be "$65.00" whereas it should have been "$25.00." While we are about it, we wish to apologize for the press work of the January JOURNAL; it was simply "fierce," and if the printer sends in another issue as badly done, we will change printers.

REPORT FROM DR. McCORMACK.

Dr. McCormack has made his report on conditions in California, to the American Medical Association, and it is a document to which we desire to call your special attention. Every county society in the state should read this report at its next meeting, and discuss the recommendations and suggestions contained in it. At the same time it would be profitable to read the letter from Dr. Loring which shows so clearly what a county society may be. If the county society is made the place where the physicians of the county come together to study and to make themselves better doctors, and if the public in each county can be made to know that this is the case—and they can—the "lodge practice" evil and the dangerous quack will be things of the past. The county society can be made so valuable, as a local educational center, that no person would care to call in a physician not a member of the society and thus profiting by its work and its benefits. The value of work, of study, of educational improvement, cannot be over-estimated. If the physicians of a county are working together and studying together to improve themselves and each other, they will not have time to quarrel and they will all be more prosperous—and better doctors. Publicity is a mighty good remedy for many sociologic ills and we, of the medical profession, have too long ignored both the ills and the remedy. Again must we commend to the attention of those 73 physicians in Los Angeles who voted in favor of "lodge practice," both Dr. McCormack's report and Dr. Loring's letter.

DEFRAUDING PHYSICIANS.

We are kindly advised by Dr. H. S. Gordon, of Santa Ana, that there is a man operating in the southern part of the state, robbing physicians of their dollars by means of fake subscriptions to *Sunset*, a magazine published by the Southern Pacific Company, and other publications. Beware of him. He signs receipts "S. P. Co., Sunset Magazine Dept. H. F. G." Sometimes he signs H. F. Grace. It is certainly bad enough to have the nostrum maker buncoing the medical profession, without permitting other laymen to do so in other and more direct ways. Incidentally, it may be suggested that it is a poor plan to pay an agent for a subscription to anything; send the remittance direct to the publisher.

WILL IT BLOW OVER?

It is reported to us that the nostrum manufacturers are inclined to believe that the present stirring up in their nefarious business will soon "blow over," and that they may then settle down to another long period of peaceful depredation. Perhaps! In the mean time, just what was expected is happening. Being forced out of the *Journal A. M. A.*, and not being permitted to befoul the pages of most of the state journals, many of the "secret proprietaries" are increasing their space in the "published-for-profit" journals, and are having interesting reading notices printed in the pages of many of the journals which they control—which means most of the privately owned "medical" journals. We may read, for instance, in many of these "medical" journals, that the physicians of this country are too wise and too independent to be lead by the nose by the CALIFORNIA STATE JOURNAL OF MEDICINE, and that they will continue to use the various nostrums of unknown composition which they have (perhaps) used in the past. We may also read editorials of astonishing similarity on the foolishness of abandoning the proprietary, "tried and true," which should be put on hot, or used cold, or taken by the bucketful, and is good for everything under the sun, moon and stars. Others of the "manufacturers" are changing the wording of their advertisements. The Dios Chemical Company, for instance, used to gravely announce to the intelli-

gence of the medical profession, that one of its preparations was a specific for catarrh and another a specific for epilepsy; now they have become more modest and have inserted the word "almost." We are convinced that within two months "anasarcin" (whatever that may be) will cease to be announced as "a cure for dropsy." It is most astonishing what havoc a little bit of truth will produce; just plain, ordinary truth, of the homely, garden variety. The paper by Dr. Billings has now been printed in the *Journal A. M. A.*, and in ten state journals. The journal of the association of the great state of New York was "bluffed" out of publishing the article by the foolish threat of the Etna Chemical Company, which concern perpetrates "phenalgin," one of the acetanilid mixtures. Michigan could not find space for the paper in the pages of its journal; doubtless it was thought that the paper and the advertising pages would be an "incompatible mixture."

SILLY REPORTS.

Anything to divert attention! For quite a while your JOURNAL, and its "lean and languid" (and many other adjectives!) editor, have been the recipients of comment, most of it far from complimentary, in a number of the "published-for-profit" journals. That was quite to be expected, so no particular attention has been paid to it, and the circulation and distribution of foolish statements or uncomplimentary remarks has gone right along. The last story to reach our attention is quite a new thing, however; it "takes a fall out of" the entire medical profession of the state of California. It is now going the rounds of the drug journals and doubtless, in time, will reach the pages of the "medical" journals. It is to the effect that the medical profession in California is made up entirely of grafters; that the doctors all expect to and do receive commissions on their prescriptions, commissions from nurses whom they assign to patients, commissions from undertakers—in fact, commissions from anybody and everybody with whom they do business or come in contact. This is the first canard that has indicated the slightest trace of ingenuity, and as such is refreshing. We would suggest that some one with a spark of imagination be hired to make up these stories; they grow uninteresting. Keep it up, gentlemen, we can stand it as long as you can, and we can assure you that it gives *us* more pleasure than *you* can possibly derive from it. But please get some new lies.

A WEAKLY(?) JOURNAL.

The poor old *Boston Medical and Surgical Journal* recently had an editorial weep on the subscribers' shoulder; we hope it feels better. It bewailed the great difficulty of editing a weekly (did it really mean "weakly"?) medical journal, and furnishing the proper sort of pabulum to its readers, in these strenuous days when one man wants "practical points" and another wants "riginal research." We venture to think that the business office has fewer troubles, and that "prompt-paying advertisers" is the only subject demanding its immediate attention. We would most respectfully suggest to the *Boston Medical and Surgical Journal* that as the nameless "medical" journal has dropped the department edited by "Old Doc," the *B. M. and S. J.* might take it up and thus establish a place for "practical pointers," wherein its readers may be kept posted on the unlimited value of the nostrums which it advertises. Of course, there would have to be some modifications from the former style of "Old Doc," for it makes one's good red blood run cold to think of the St. Louis-"Old Doc"-English appearing in a publication edited in Boston; "Old Doc"-English would have to be translated into Bostonese. Or, for variety, and to furnish a section where all interests could find something entertaining, it might start a funny section and call it the appendix vermiformis; this would, presumably, attract attention, even if it did not excite universal approbation. Or it might confine the matter in every other issue to articles in words of one syllable. Never mind, old lady, don't cry; in the historic words of "Poker Davis," "you're doin' the best you can." But perhaps this is undignified; horrible thought!

THE STATUS OF ORGANIZATION WORK IN CALIFORNIA.*

By J. N. McCORMACK, M. D.

Chairman of the Committee on Organization of the American Medical Association, Bowling Green, Ky.

While it is now very generally known that my work is entirely in the interest of county and state organizations, and is done wholly at the expense of the American Medical Association, and although the profession everywhere has been more enthusiastic after my visits than the merits of what was done seemed to warrant, it is not so well known that I have had to almost literally beg my way into most states, and that I am still kept out of others where the need for somebody to do something to arouse and help the profession is even more evident. Fortunately, I have been relieved of all embarrassment in the matter by the knowledge that the obstacles or objections are in no way personal to myself, to what I represent or to the Association. Most frequently the trouble is that the council and other state society officials labor under the delusion that their organizations are already so advanced that only the element of time is needed to make them complete. Often I am told that "You could use no argument and bring no influence to bear which we have not already exhausted, and we cannot think that the results would pay for the trouble to us and the expense to the Association which would be involved. Back of all these expressed difficulties is the fact that these officials are busy practitioners who are so occupied with their own affairs that they cannot, or at least do not, give much serious thought to anything else which they can postpone or avoid. Being thus relieved of all personal embarrassment, and knowing from long experience what can be accomplished if the opportunity is given, I have just patiently, kindly and tactfully persisted in my efforts

*Copy of a report sent to the American Medical Association.

to secure the necessary co-operation and to get in, and have seldom failed to find that the work was most needed in those states where the need for it was least felt.

California is an excellent illustration of what has just been said. It was the first state to adopt the new plan of organization without advice or assistance from the outside. The increase in membership has been rapid, and societies exist in all but a few sparsely settled counties. Through its ably edited STATE JOURNAL it is leading in some of the best and most fruitful reform work which is being done in this country. Its Secretary and editor, Dr. Jones, in a most altruistic and unselfish way, has given up every other interest and ambition in order to devote his entire time and talents to its work. It has a fair medical law, and the standard of examinations is high. The fees for medical men are higher than in almost any other state in the Union. This is far more than had been accomplished in most states—more than has been done in my own state in several lines, and a pride in it all is natural and easy to understand. Still, from a careful study of their legislative history, of the dominion and insolence of the quack interests in the state, and other unmistakable symptoms, I became convinced that their attractive looking organization was largely on the surface, and that the unusual prosperity of their profession was not only fortuitous and insecure, but was endangered by the same influences which have operated so disastrously for years in the East and Middle states.

When I took the matter up with Dr. Jones he insisted that their organization was complete except in a few sparsely settled outlying counties, and no impression was made when it was urged that far more good could be done, and that there was the greatest need for work in San Francisco, Los Angeles, Sacramento and other centers of population than in the country districts, and that his plans could not be considered even well under way until these centers were thoroughly infected with the modern spirit of professional co-operation. When we met at Portland, after fruitless correspondence, I was not surprised to find that we had been discussing entirely different propositions. Earnest and able worker as he was, and is, he had believed that his profession was organized as soon as a large majority of them were enrolled in the membership, with a good attendance and an interesting program at the annual meetings of the State Society, and a strong journal for intercommunication and instruction. When he realized that, important and necessary as these things are as links in the complete chain proposed under the new system, they are secondary to and almost entirely dependent for real effectiveness upon the county societies, and that these, meeting weekly or oftener, should and can be made live local schools for working out all of the complex problems confronting a rapidly evolving profession, including post graduate work, practical business methods and for educating and leading public opinion along proper lines as to the reasons for and methods of securing and enforcing medical and health legislation, he was more anxious for the work to be undertaken than I had been, and at the end of the itinerary exacted a promise that I would return next year for at least six weeks' work of the same kind.

As first arranged, the itinerary included Sacramento, Oakland, Santa Rosa, San Jose, Monterey, San Luis Obispo, Los Angeles and San Diego. Later Pasadena and Long Beach were added. Dr. Jones attended all of the appointments with me except those at Santa Rosa and San Luis Obispo, and it soon developed that he had made systematic arrangements to secure the fullest possible representation at all of the meetings. At Sacramento, the first meeting, as the attendance was pretty full, and as I had the privilege of meeting many of the members in advance, opportunity was given for a careful study of local conditions. The personnel was markedly high, especially on the social side, but their county society was of the old perfunctory kind, and although at the beautiful and historic capital of the state, where the need for a live interest in public affairs and for concert of action was so great, they had never even grasped the idea of such an organization or of uniting and wielding the powerful influence of the profession in everything for the promotion of its own and the public welfare. For instance, Governor Pardee, a physician, and a member of the county society since his removal to the Capitol, had been forced to veto an anti-vaccination bill during the last session of the General Assembly, which he believed could have been easily defeated with a little effort by the local profession. Other instances were related where prominent members had failed or declined to explain important measures to legislators who were patrons or personal friends. On the whole, I got the impression that this excellent profession more than usually harmonious and prosperous, and located at a point of the greatest advantage and importance, was practically dead to everything not entirely personal.

My opportunities for forming an opinion were more limited as to San Francisco and Oakland, in many respects one profession. While their societies attempt little except the reading and discussion of papers and the old order of routine work, so far as could be learned, they were somewhat more progressive than the one at Sacramento. No systematic effort had been made to deal with quackery and other similar problems, and the society appeared to be drifting along in the direction of least possible resistance, although made up of a profession able to guide with a master hand if aroused to the importance of doing so. The society at Santa Rosa was new and enthusiastic, that at San Jose solid and conservative, with delightful personal and social relations. Although adjoining one of the great army posts, with every facility and incentive for clinics and scientific work, the society at Monterey was weak and dormant, and things were not materially different at San Luis Obispo.

We had more time again at Los Angeles, and looked into local conditions carefully. Owing largely to the personal efforts of an active and capable President, Dr. Joseph M. King, this society had made a rapid growth during the past year in both membership and interest, and a successful warfare had been waged against a number of unlicensed quacks of the lower order. Their principal work, however, had been along the old routine lines, and no serious discussion ever had been had of the vast practical problems confronting the profession at every turn. They were fairly harmonious and very prosperous, and had not been alarmed by the rapid gains being made by the old as well as the almost endless new forms of quackery. And Los Angeles is a veritable paradise for quacks. Chiropractics, neuropractics, vitopaths, neuropaths, and others not classified, in addition to the common varieties with which we are all so familiar, were extensively and expensively exploited in open defiance of law and decency, all claiming, of course, not to be physicians. These combined interests appeared to have a controlling influence over the public press, and are likely to exercise a like power over legislatures and courts within the next few years unless all of the friends of scientific medicine can be united in an intelligent, systematic, comprehensive opposition. Pasadena has an excellent branch of the Los Angeles county society, and we organized a similar one with a promising future at Long Beach.

San Diego is entitled to a chapter of its own. In this beautiful, semi-tropical city, so favored by nature and human enterprise, the profession had been engaged in an internecine, personal and factional war for years, which had brought it into great public re-

proach. Some of the leading physicians had been kept out of all society relations in spite of the best efforts of the councilor and others, until the strife had come to be looked upon as chronic and almost hopeless. Declining to hear anything of the origin or history of their troubles, and having all of the factions present at the meeting, I frankly told them of the disgrace which doctors had brought upon themselves in all of the ages by causeless, senseless bickerings, how these things had consumed energies and barred progress, showed them how all had been equally to blame, but equally held in public contempt for these conditions, and then, without ever referring to their local affairs, I tried to convince them that harmony and cooperation were more important in ours than in any other vocation, and that there were at least ten reasons in favor of these pleasant and profitable relations where there was one for discord. In conclusion, I urged that if dissensions existed there a general clasping of hands, without apologies or explanations, and an individual resolution to try to do better in the future would settle everything. In less time than it has taken to tell this story there was a general and joyous handshaking going on until it embraced every one who had been in discord, and it was tacitly agreed to take every one into the society and unite in efforts to make it one of the best in the state. Dr. Jones and I remained over for a day to join in a boat ride down the bay, which the local profession insisted upon as a ratification of the era of good feeling upon which they were all so rejoiced to enter.

I feel that the foregoing is a very imperfect and restricted description of local society conditions in California. I have described things as I saw them, but am convinced that what I have said gives a very inadequate conception of this great profession as a whole. For they have a great profession. Individually they are strong. Socially they are delightful. They are more prosperous financially than in any other section I have visited. **But they are weak just where they need to be strong—in their county societies. In consequence, there has been little cohesion or unity of purpose, there has been no systematic or well-directed effort to secure the cooperation of the press and other educational agencies in creating and guiding public opinion in regard to medical and public health affairs, or to concentrate the influence of the profession itself upon proper legislation.**

A system of local societies, composed of and uniting all of the reputable physicians in each county, **meeting at short intervals and alive to, and in touch with, every proper and available power for good in their respective jurisdictions,** are the only agencies through which these things can be done. **In California better than in almost any other state all of the other machinery is about complete.** They have a strong State Society, and an able and fearlessly edited journal. It is the only state in the Union except Alabama, which has a secretary who can devote his entire time to this work. Dr. Jones deserves, and to a remarkable degree has, the profession solidly enlisted in his support. Their legislation is in a bad shape. **They especially need a blanket provision in their medical law,** like the one we have in Kentucky, **which requires every one practicing the healing art under systems now in existence, or which may hereafter be discovered, to take a fair and impartial examination.** There are many other things to be done, but this should receive early attention. They have little legislative influence at present, and **there is danger from adverse efforts from the combined quack interests at the next session of their General Assembly,** but with such a profession and such an able and unselfish leader, and with such a system of local societies, as I have urged, **it can and should soon be the banner state of the Union in medical organization, including model medical legislation.**

A GREAT WORK. WHAT A COUNTY SOCIETY MAY DO.

The following letter from one of the leading surgeons of Indiana contains so much of interest to county societies, indicating what may be done in any section where as many as three or four wide-awake men can be gotten together, that we are glad to put it before the profession. "What one man has done, other men can do."

Valparaiso, Ind.,
December 21, 1905.

DR. J. N. McCORMACK,
Chairman Committee on Organization,
Bowling Green, Ky.

Dear Doctor:

Your letter asking me to elaborate our plan of Post Graduate work here, with the view that such an account may be used in inducing other medical societies to do likewise has been received.

I am greatly pleased to have the privilege to do this, not only for your personal gratification, but for the reason that I am confident that it will redound to the very great benefit of such societies as deem it wise to adopt our plan, as well as to the individual members. It will enable them to do better and more efficient work for the public as a whole, and aid each individual physician in rendering the best possible service to the unfortunate sick.

Our work was begun two years ago by getting every physician interested in becoming more familiar with scientific and practical knowledge which would be an advantage to him at the bedside, and which would broaden him as a physician. With this end in view, we rented a room, formed a club, and endeavored in every way to appeal to and build up the social, scientific, and material spirit and welfare of the profession. From every point of view I desire to report that we have been eminently successful.

In carrying out this plan we divided our work in such a way that each physician was required to act as a teacher of some special subject, and all the others took their places as students once more. Anatomy and Surgery were assigned to one, Physiology and Practice to another, and so on through the list of subjects, one fundamental and one practical branch to each teacher. Our meetings were held twice a week, regular lessons were assigned, and we were expected to be present and give one hour's time to the recitation and study of such subjects as were assigned to that evening. In this way we were enabled not only to exchange individual views as to what we believed, but could always have some good medical authority to place us right if it were found that we were wrong. This plan proved very desirable and we soon learned that the teacher of the topic derived far greater benefit from his course, for the reason that he was required to study more to hold his ground, often against the combined opinion of his class.

After going along in this way for a time it became apparent that our faculty should be changed from time to time, in order that the teachers should become proficient in more than one subject. I desire to report to you that we found this most satisfactory, and that it has resulted in a marked improvement in the attainments of every member of our profession, which means of course of the profession as a whole.

The social feature of our plan has done as much, if not more, for the good of the profession, as the scientific work. I am now able to say that we have no one in this county not on the most friendly terms with each other, and that such condition is because they actually desire to be friendly.

In addition we have kept up our regular society meetings, always with increased interest, and although ours is not one of the large counties I feel safe in saying that we have one of the best, if not

the best, society in the state of Indiana, and we are resolved to go on and make it still better.

In connection with this work it did not take us long to determine that, in consideration of the increase in the cost of living in recent years, we were not being adequately paid for our services, and we concluded that it was only just that the scale of fees should be increased one-half. In order that this might be uniform we all signed the schedule definitely fixing the price of services for both day and night and had this published. It went into effect without a single ripple and has been strictly maintained. I have never heard a complaint on the part of the public or of the agreement being violated by any member. In fact the public seem to understand the necessity for the change, largely for the reason that it knew we were making an heroic effort to give the people better service. The results have been that our incomes have been increased by one-half, and that night work has been reduced to a minimum, giving us the evenings for post-graduate work and to spend with our families. While we have not accomplished all that we set out to do, we have certainly made rapid progress, and are not to stop or falter until our ideals are attained.

Probably this very crude plan might be greatly elaborated and improved, but it has worked so well, and given such universal satisfaction here that I am sure none of us would be willing to disturb our present satisfactory condition.

Should you be able to use what we have done as an incentive for others, or to elaborate it for the promotion of medical organization, you will have the very best wishes of every member of our profession in doing so. With personal best wishes,

I am, most sincerely yours,

DAVID J. LORING, M. D.

ASPHYXIA NEONATORUM. A NEW METHOD OF RESUSCITATION.

By WILLIAM HIMMELSBACH, M. D., San Francisco.

THE method proposed was first used by me in March, 1900, since which time I have applied it in twenty cases, with uniform success. I claim priority, although Dr. Samuel Wolf, of Philadelphia, later in the same year, as gleaned through subsequent correspondence, likewise used my method, though not aware of it at the time, evidently two minds running in the same groove.

Before detailing the last three cases, typical of all preceding, I would beg indulgence in a few general remarks pertinent to the subject in question.

Suspended animation, as is well known, is commonly divided into two stages, the "anemic," or "asphyxia pallida," and the "apoplectic," or "asphyxia livida." Peripheral stimulation in one case is frequently successful, while in the other it is useless.

The anemic form is due to insufficient nourishment, torsion or compression of the cord, disease of placenta, disturbance of placental circulation, congenital diseases, malformation, morphine or chloral, premature labor, whereas the apoplectic form is the result of tedious labor, premature first stage, breech presentation, forceps. In the one case, there is an insufficient blood supply; in the other, local congestion, general venous stasis, diminished supply of maternal or placental blood, due to direct interference with umbilical circulation. In the anemic form, when occasioned alone by the loss of blood, there is a depletion of the circulatory system, as well as deficiency in maternal blood supply.

Prognosis is usually considered unfavorable. I simply advocate, in addition to the older methods, the newer one given below, as even seemingly hopeless cases have been restored and preserved.

The following history has been gathered from papers of Dr. Bissell and others. In 1543 Visalius published his experiments, which demonstrated the effect produced upon the heart when the lungs of animals were inflated with air. In 1664 Robert Hook introduced artificial respiration, the principles of which have ever since been the recognized means of reviving, where suspended animation exists, but to Marshall Hall we are indebted for having made the first advance in the study of the nature and cause of asphyxia, one of the forms of suspended animation, superior to any previously suggested.

In 1824 Dewees advised placing the child head downward, and holding the body and the hips higher than the head, and renewing the inflation alternately. In 1883 Professor Simpson, of Edinburgh, taught to first hold the infant by the heels, to allow any fluid to run out of the air passages, and then perform artificial respiration by the Schultze method. Dr. Morrison, in an article, described the condition as a disease of the circulatory and not the respiratory system. Dr. John McKenzie, in the *Lancet*, however, described a case in which the heart continued to beat for more than four hours, without the respiratory function having acted. Puzzled at the phenomenon of the heart beating all this time without the faintest appearance of respiration, the idea struck him that the heart was stimulated mechanically through the terminal filaments of the vagus, by air passing through the esophagus into the stomach, and not, as he had imagined, by the presence of oxygen in the fetal blood. To clear up this doubt he managed to pass air by means of a small rubber catheter into the stomach, and whilst doing so, heart beats fell back to the original condition, slow and feeble, just ticking in the distance, but on resuming blowing air through the mouth and nostrils the heart responded and improved as already described. This he did over and over again, and at last, in despair, and to his regret, left his patient. It then had a strong, bounding pulse. On returning the next morning he found the child dead. How much longer than four hours the heart continued beating he was unable to say.

Dr. W. C. McGee, of Ohio, claims to have resuscitated sixty-eight cases within two minutes after birth. He catches feet in one hand to hold child securely and places the other hand over the shoulders from behind, and two fingers on each side of the neck for protection. Then he takes the child head down and feet up, and begins up and down movements, at first slowly and then getting up to fifteen or twenty. If the cord is not long enough to permit motion he waits five minutes, cuts the cord and ties.

Dr. Bissell is a strong advocate of suspension by the feet. In regard to the cord, he says: "If we have to deal with the apoplectic form, it is well to allow the umbilical circulation to continue several minutes after birth. The engorged vessels are thereby relieved without loss of blood, as occurs when the leakage is allowed from the severed cord. Should efforts at respiration not be made during the first two or three minutes, it is best to ligate and sever the cord immediately after birth, so as not to allow increased loss of blood."

Other methods are Schultze's, Mouth insufflation, Byrd's, Forest's, Pacini's, Schroeder's, Sylvester's, Laborde's. As regards Schultze's method, cases have been reported of rupture of the liver, with fatal termination; and Schultze himself reports a sudden death after resuscitation, the autopsy showing a broken bone having perforated the pleura and lung.

I shall now give a history of my last three resuscitations by the new method.

Case I. Primapara, aged 22. Called at 10 P. M., June 9, 1905. Abdominal palpation showed the child's back in the right flank, with the extremities to the left above. Heart sounds distinctly heard to the right and below the umbilicus. Os sufficiently dilated to detect by vaginal examination, the sagittal suture in the oblique diameter, the small fontanelle toward the right sacroiliac joint. Diagnosis, vertex presentation, R. O. P. position. Membranes ruptured spontaneously at midnight, June 10th.

All instrumental aid positively objected to by patient. At 5 A. M., June 11th, head well down on the pelvic floor, but auscultation failed to detect fetal heart sounds. Situation and danger to fetus explained to mother, and consent obtained to apply forceps, which was done, and child extracted. Its appearance was peculiar, the hands and half way up the forearm, the feet and half way up the legs, were of a deep blue color, as though dipped in dye, line of demarcation sharply drawn, the remainder of the body being of a marble-like whiteness. There was absolutely no respiration, nor could any heart sounds be detected, body extremely cold, no muscular tonicity, extremities and head hanging loosely. The umbilical cord barely pulsated, so ligated and cut. Hot and cold applications, inversion, Schultze's method, flagellation, made no impression, so after ten minutes, believing the child dead, injected hypodermically 1-1500 gr. of sulphate of strychnia and 1-2000 gr. of sulphate of atropine. In about five minutes was encouraged by an occasional gasp, with perceptible heart sounds, in fifteen minutes a second hypodermic, as above, was given. One hour after birth, pulse 130, breathing regular, 30, and for the first time emitted a cry.

Case II. Primapara, aged 20. Vertex presentation, R. O. A. position. Called June 20th, 9 P. M. Membranes ruptured June 21st 2 A. M. Child born 3 A. M. Much to my surprise, no respiration, no reflex action, extremities limp. After usual manipulations, was rewarded with an occasional gasp, followed by cessation of respiration. Heart sounds very faint, about twenty-five per minute. Injected hypodermically above solutions. Same result.

Case III. Primapara, aged 19. Called October 10, 1905. First time saw patient. Diagnosis, transverse presentation, delivered by podalic version. Asphyxia. Resuscitation, after abandoning common methods, by the injection process.

These cases were particularly desperate, but am proud to say at present time are good specimens of healthful infancy.

TUBERCULOSIS OF MESENTERIC LYMPH GLANDS, SYMPTOMS OF INTUSSUSCEPTION NECESSITATING RESECTION OF THE INTESTINE.

By HARRY M. SHERMAN, M. D., San Francisco.

THE following case report includes two diagnostic opportunities, and is for other reasons as well, not uninteresting:

A girl, 8 years old, was brought to me with presumably pseudo-hypertrophic muscular paralysis. I sent her to Dr. Moffitt for a confirmation of the opinion, and for such general treatment as he deemed wise. Shortly after his first interview with her he was summoned to see her again for an abdominal condition. This began with pain and obstipation, vomiting and headache. The obstipation was at first complete and resisted cathartics, but later yielded to an enema, and from that time there was diarrhea, small muco-sanguinolent stools being voided two, three or four times a day. Furthermore, a rounded mass about 8 cm. in diameter could be felt in the abdomen, just below the umbilicus. A diagnosis of probable intussusception was made and the child was transferred back to me and sent to the Children's Hospital.

When I saw the child at the hospital she was quiet. There were no peritoneal facies, the belly was flat and soft, there was no tenderness in any part; a mass of egg-size could be felt to the left of umbilicus; it was easily movable and not tender. Careful mouth feeding was ordered, fluid and semi-fluid, but it again caused vomiting and had to be abandoned. Meanwhile, watery stools with mucus and blood were voided, several a day. The tumor changed its position so that it came to lie below the umbilicus, but it changed in no other respect.

Two days after admission to the hospital the belly was opened with the expectation of finding an intussusception, which was causing some obstruction, but not occlusion. The operation disclosed a large gland in the mesentery of the ilium and close enough to the spine to press on the mesenteric veins and partially occlude them. The intestine served by these obstructed veins was thick, edematous and in a state of congestion. As it was impossible to remove the gland without either rupture or injury to the veins, and as, if it was left it soon must itself break and pour its contents into the peritoneum, producing tuberculous peritonitis, it was decided to remove the gland and all the mesentery and intestine served by the obstructed veins; 53 cm. of the intestine, with its mesentery was resected. A Murphy button was used to make the anastomosis after the resection.

My own original examination of the child had been superficial. She was brought to me because of increasing difficulty in going up hill, or up stairs. Her muscular weakness was plainly seen, her thick legs were equally obvious, a brief examination excluded a bone or joint lesion, and her climbing up her legs, in getting up from the floor, changed a suspicion into an opinion and I sent her away as I could do nothing for her and I did not care to take the responsibility of a neurologic diagnosis.

Dr. Moffitt did examine the abdomen and found nothing in it, nor was there any suggestion of the abdominal state until the sudden onset of pain, obstipation and vomiting. As will be seen from the pathologist's report there were some small lymphatic glands in the wedge-shaped piece of mesentery removed and these could not have been felt through the abdomen. The gland which caused the obstruction must have been the seat of an acute inflammation and rapidly enlarged between the time of Dr. Moffitt's first examination and the onset of abdominal symptoms. These symptoms could suggest nothing but intussusception, and no real doubt of the accuracy of the diagnosis existed until the belly was opened.

Tumors of the mesentery, malignant or otherwise, habitually or, at any rate not unfrequently, interfere with the circulation in the intestine. If the tumor is among the *vasa tenuis*, when the collateral circulation is so remarkably free, the interference will count for nothing. If it be above the *vasa tenuis*, it may easily cause the congestion of a certain length of intestine and this congestion may result in complete stasis of the blood and end in gangrene.

If the tumor press on and occlude the trunks of the mesenteric vessels, gangrene of the whole intestine naturally follows. During the period of congestion intestinal contents can pass only with difficulty through the swollen turgid part of the gut, and mucus and blood are quite certain to be poured into the intestine, and to be evacuated, leading most naturally and commonly to the idea of an intussusception. The removal of such an obstructing tumor necessitates the resection of the intestine for the fact that it has seriously disturbed the intestinal circulatory integrity showing that that particular part of the gut is actually doomed, and is in process of having the sentence executed.

After the operation the child did reasonably well until we came to feed her by the mouth—though the mucus and blood persisted in the stools. Mouth feeding was begun on the third day after the operation and continued 3 days without trouble; then the child vomited, and again on the next day. On the 5th day of the mouth feeding the child was somewhat stupid, but complained of tenderness in the belly. The temperature was going up day by day and the leukocytosis began to go higher. On the 6th day the belly became distended, there was much tenderness and the knees were drawn up. The temperature was 39.6°, but the leukocytosis was 3000 lower than the 5th day, being 15,000.

It seemed now impossible to avoid a diagnosis of peritonitis, and with the idea of localizing the process the mouth feeding was stopped and the rectal feeding resumed. By the following day the improvement was so great, the distension and tenderness gone, the temperature normal and the leukocytosis down to 12,400, that the peritonitis idea was abandoned and mouth feeding resumed. This only served to make her worse, with return of distension and tenderness, the belly being quite tight. The temperature also went up again, but the leukocytosis remained low.

It was noted, however, that while the belly was swollen and tight and tender there was no muscular spasm or rigidity, and of this I felt sure, even making allowances for the muscular atrophy which was part of her pseudo hypertrophy. A radiogram taken at this time showed the button turned on its side and moved but little from its original location.

A diagnosis under these circumstances must lie between a peritonitis with a low leukocyte count, 9600, and no muscular rigidity, or an intestinal sapremia due to partial obstruction, and the differentiation was not an easy one.

A low leukocytosis might be understood in a child with a degenerative disease in the first instance, a chronic infection added, and an operation with sec-

ondary acute infection on the top of the other two. Malnutrition due to rectal feeding might be a factor in keeping down the count. It would be, of course, a practical leucopenia and was an understandable possibility. The lack of muscular rigidity might still, in spite of my belief to the contrary, be due to atrophy of the muscular elements in the abdominal muscles, unfortunately I had not thought, at the time of the operation, to take a specimen of muscle for examination, and I had no definite means of estimating the value of its muscular action. I only knew that no action was present, a condition that might have positive or negative value in the diagnosis.

Now, counting these two symptoms as against a peritonitis, that is, giving them their face value, the evidence in favor of peritonitis was only the distension, the tenderness and the high temperature, 39.2°. As against peritonitis, we might count with the low leukocytosis and the lack of rigidity, the persistence of the diarrhea, with blood and mucus the chief elements in the stools, and the persistence of intestinal gurgling. For if there was a peritonitis it should be extensive and severe, and intestinal paralysis should be present. In addition, there had been a too rapid disappearance of all symptoms upon the stopping of mouth feeding. An acute peritonitis, with severe symptoms, does not disappear in 24 hours merely because of abstention from food by the stomach.

A diagnosis of sapremia was, consequently, made and the belly was opened to remove the button by an enterotomy. No peritonitis was present. The button was removed, the wound closed and the episode was ended, for the child made an uneventful recovery.

CONTRACT PRACTICE.

The Shasta County Medical Society not long ago adopted resolutions condemning the contract society and lodge practice. Shasta Aerie, No. 160, Fraternal Order of Eagles, adopted a set of resolutions Wednesday evening upholding the system. In answer to these resolutions Dr. O. J. Lawry, president of the Shasta County Medical Society, and Dr. B. F. Wallace, secretary, have made reply in a signed statement published below. In order that both sides may have a hearing, the resolutions and the reply are herewith published in full.

Resolutions.

Whereas, The local newspaper recently published the following resolutions as having been adopted by the Shasta County Medical Society, to-wit:

"Whereas, It is the sense of this body that contract society and lodge practice as now performed is detrimental, degrading and humiliating to the medical profession; therefore, be it

"Resolved, By the Shasta County Medical Society, in regular meeting assembled, that no member of Shasta County Medical Society be permitted to enter into contract relations with such society; and be it further

"Resolved, That no physician in the employ of such societies be eligible to membership in the Shasta County Medical Society. Be it further.

"Resolved, That no member of the Shasta County Medical Society be permitted to consult with any physician following such contract practice."

And, Whereas, The Fraternal Order of Eagles is a fraternal benefit association, founded upon the principles of liberty, justice, truth and equality, and having for its objects the care of its sick and distressed members and the protection from want of the widows and orphans of its deceased members;

And Whereas, For the accomplishment of these purposes, it is necessary to have at all times a competent physician who believes in the cardinal principles of our order;

And Whereas, The manifest purpose of the published resolutions is to prevent, by intimidation and professional ostracism, any physician in Shasta County and within the jurisdiction of the medical society from entering into a contract with the Aerie or any other fraternal organization;

And Whereas, We regard the position assumed by the medical society as an arrogation of the right to dictate to this Aerie and like organizations the terms upon which it may carry out the purposes for which it was formed, and that, if any medical society had this power, all work of charity and brotherly love through fraternal organizations and homes, such as those as the Odd Fellows, Masons, Young Men's Institute, Foresters, Eagles and many other institutions of like character, must suffer thereby when such medical society sees fit to adopt a higher scale of prices;

And Whereas, The Fraternal Order of Eagles will not permit any society or association or set of men to dictate on what terms the members of this order shall be protected, or what will be the conditions of the contract between this Aerie and its physician;

And Whereas, Shasta Aerie, No. 160, F. O. E., has a membership consisting of nearly two hundred citizens of this community, pays all its bills, is fully able to take care of each and all and every one of its members, and is and will continue to be actively opposed to any attempt to prevent the accomplishment of its fraternal purposes;

And Whereas, The contract society and lodge practice as now performed is exactly the same in every particular as it has been performed for more than fifty years last past;

Now, therefore, Be it Resolved by Shasta Aerie, No. 10, F. O. E., that the worthy physician of this Aerie be, and he is hereby authorized and empowered to call into consultation with him such consulting physician or physicians of Shasta County or adjoining counties, at the expense of this Aerie, as the exigencies of the case may require, or when he may deem it necessary or expedient for the full and complete treatment or protection of the members of this Aerie.

Adopted by Shasta Aerie, No. 160, F. O. E., at a regular meeting, December 20, 1905.

The Reply.

Redding, Dec., 23, 1905.

As members and officers of the Shasta County Medical Society, acting under instructions of its Executive Committee, and in defense of our action relative to contract lodge and society practice "as now performed," we wish to correct the misapprehension of its motives and purposes as voiced in the resolutions of Shasta Aerie, No. 160, Fraternal Order of Eagles, adopted December 20, 1905, condemning our action. In the first place, we wish to deny that our action was aimed at fraternal orders or any particular physician now doing lodge contract practice, as our resolutions do not go into effect until January 1, 1906, and several physicians now serving in the capacity of lodge physicians are members of the Shasta County Medical Society.

We would also most emphatically disclaim any attempt to "dictate to the Shasta Aerie or like organization the terms upon which it may carry out its purposes," but we submit that as medical attention to its members is one of its principal features, medical opinion could not fairly be ignored when arrangements for such services were being considered. If they wished to secure lights for their hall, they would have to consult the Northern California Power Company. If they need groceries for any of their members or stationery or seals or any other lodge furniture, they would certainly have to consult the people dealing in such commodities. But if they want the services of a physician, judging from their

resolution, they would like "to dictate" to our profession the terms upon which we may be permitted to render such services.

But now to the point at issue. Mark the preamble to our resolutions: "Whereas, It is the sense of this body that contract lodge and society practice, as now performed, is detrimental, humiliating and degrading to the medical profession." The Shasta Aerie of Eagles, by its action has invited us to produce the proof, and we accept the invitation and thank it for the opportunity of so doing. While to many of our profession contract practice in all forms is objectionable, it has not beeu possible to eliminate it in some cases, and where there has been an approach to a fair compensation for such contract work, it has not been officially condemned. But when our mild acceptance of a seeming wrong encourages any lodge or society to place a valuation upon our services comparable to those of the bootblack and peanut vender and attempts to force us into acceptance of its valuation, then indeed is it time to feel ourselves humiliated and degraded.

Let us compare the rates which the order of Eagles is offering us and is censuring us for refusing, with the rates other institutions are allowing us. Shasta County is paying its physician $75 per month for caring for an average of fifty inmates of the County Hospital. All the mines and lumber companies in the county are paying their contract physicians, where they have one, $1 for every man upon the monthly pay rolls. The railroad pays its local physicians the customary rates of our fee bill for caring for its sick and injured. Usage, then, recognizes $1 per month as the minimum fee for medical attendance for each man.

Let us say, then, $1 has been accepted as a reasonable contract compensation for medical attention to one person. Then anything less than that would be an unjust discrimination against the medical member of any order organized for the care and protection of its members. The Shasta Aerie of Eagles admits its "ability to care for each of its members" and pays its physician only 50 cents per quarter, or sixteen and two-thirds cents per month for each member, and for this small sum expects him to render his services, not only to the individual member but to his family as well. Then for its 200 members and their families, which probably will number in the aggregate 350 persons, its physician receives $33.33 per month, or a little less than 10 cents for each person claiming his services.

For medical care, then, the Eagles are willing to pay a little less than 10 per cent and expect their medical members to contribute over 90 per cent of this charitable service. Two hundred members pay 10 per cent, and one poor medical member has to contribute over 90 per cent.

Is this in accordance with those eternal "principles of justice, truth and equality" which they claim actuate their order? Is it a square deal?

Outside of fraternal orders no profession or calling does more for charity or the sick and unfortunate humanity than the medical profession, and inside the benevolent orders will be found amoug their most prominent members representatives of our profession, cheerfully contributing of their means and their services to every worthy cause. Then why should we shoulder a greater burden of charity and benevolence than all the rest of a beneficial society? If we are right in our assumption that such contract work is humiliating and degrading, as would appear from the foregoing statement of facts, then the charge of intimidation and professional ostracism falls to the ground.

Our action had the unanimous endorsement of every member of the society, either tacit or expressed in our meeting. Every member of the Shasta County Medical Society, including all members now doing contract society work, was twice given the opportunity of expressing his sentiments in meeting, and every one of them was twice urged to express his opinion by letter, in case of inability to be present at our meetiugs, aud assured that such expression should weigh the same as if present, the proposition having been submitted to us by the State Medical Society, a branch of the American Medical Association, for action. Among all replies received and all votes cast on the question, there was not one dissenting voice. If among our membership there were one person holding views in opposition to our stand, he did not say so, and if after tacitly agreeing with the ideas thus expressed in our resolutions he should ignore them and do the very thing his society has officially disapproved as wrong and humiliating, he would thereby ostracise and defy his colleagues and reject their counsel and assistance. Should any physician not a member of our society accept such a contract, knowing the sentiments of the organized profession in opposition to the same, he thereby would assume an attitude of defiauce to his professional brethren and show his contempt for their opinions.

Any member of the Shasta County Medical Society who should continue his services after the time allowed by our resolutions, having tacitly endorsed such resolution, would disregard his fraternal obligations and could not be held up as a martyr or a victim of persecution and professional ostracism.

In either case to expect any self-respecting physician to hold professional consultation would be unreasonable and absurd.

As regards the Eagles, the whole thing "in a nutshell" is this:

For medical attention to your members and families you offer us only 10 cents each per month, probably less than you pay your janitor. This offer we consider uuworthy of any lodge or order holding the tenets of "justice, truth and equality," as cardinal principles, and degrading and humiliating to our profession. Against your order and its members, outside of this question, we hold no prejudice, and among the members of your order and ours there are many instances of the warmest friendship. No thought of individual persecution actuated us. Our action was without prejudice to any order, as among our profession it would be exceptional to find a man not an enthusiastic member of one or more of the fraternal orders. Our stand was taken as a demand for fair play, and in a laudable effort to elevate the standard of our profession to the mutual benefit of ourselves and those whose health and lives are entrusted to our care with the knowledge that adequate medical attention can never be rendered for so small a compensation.

O. J. LAWRY, President.
R. F. WALLACE, Secretary.

The Searchlight, Redding, Cal.

American Urological Association.

The first meeting of the Pacific Coast branch of the American Urological Association was held at the offices of Dr. McConnell, 705 Sutter street, San Francisco, Tuesday, January 16, 1906, at 8:30 P. M.

The following was the program:

"Nephro-phone vs. Roentgen Rays in Nephrolithiasis, with Demonstration of Cases," Dr. G. F. Eaton, San Francisco; "The Prognosis in Syphilis," Dr. A. E. Mackay, Portland, Or.; "A Case of Cancer of the Prostate, the Bladder Base and the Left Seminal Vesicle; Operation, Recovery," Dr. Granville MacGowan, Los Angeles; "Intravesical Operations with the Aid of the Cystoscope," Dr. Henry Meyer, San Francisco; "A Case of Prostato-Rectal Fistula," Dr. R. L. Rigdon, San Francisco; "The Effect of Uterine Retro-Displacement on the Urinary Bladder," Dr. G. S. Whiteside, Portland, Or.

HERZSTEIN LECTURES IN THE UNIVERSITY OF CALIFORNIA FOR 1905.

Special Chemical Problems Related to Practical Medicine.

Synopsis furnished to the JOURNAL by the lecturer.

LECTURE IV.

The Value of Kryoscopic Investigations for Pathology and Diagnosis.

By ALONZO ENGLEBERT TAYLOR.

Each cell has as components colloids, arranged in phases of different densities, lipoidal substances, organic non-dissociated crystalloids, organic electrolytes and inorganic electrolytes. The electrolytes are probably in part in complex chemical combination with the colloids; in part, their relation is one physical to the properties of these colloids. For each cell there is an osmotic concentration of a salt solution that is isotonic, i. e., exhibits the same osmotic pressure. The saline concentration, which is isotonic to a cell, corresponds in the static and dynamic sense to those physical relations between the colloids, crystalloids and water that obtain in that cell. When a mass of cells are aggregated into a body, there is a pronounced tendency to maintain constant in the circulating fluids that surround these cells that molecular concentration that is isotonic to them, though the physical methods by which these cells accomplish the result is not clear. The osmotic pressure of the circulating fluids is due almost entirely to inorganic electrolytes, which in the concentration present are nearly entirely dissociated. The proteins of the blood and lymph sera have a very low osmotic pressure, the sugar, urea and other organic substances are present in so low a concentration in the blood as to exert little osmotic pressure. The concentration of the electrolytes has, so far as known, two functions. Since it is isotonic to the cells (an arrangement for which the cells must be held in some way responsible), it preserves them intact in their physical and chemical properties. It also retains colloids in the circulating stream. Colloids have the most marked properties of adsorption for colloids, a property that is antagonized by electrolytes. Were it not for the presence of salt in the blood and lymph, the proteins of these fluids would be entirely held by adsorption by the cells of the body. The salt enables protein to remain in the circulation and to be available for the needs of the body.

Each cell, whatever the concentration of the saline solution to which it is isotonic, possesses a certain power of adaptation to variations. When a cell is placed in a solution hypertonic or hypotonic to itself, the semi-permeable properties of the cell membrane permit it to adapt itself to these deviations, within certain limits, by the absorption or the extrusion of water and also to some extent by the absorption or extrusion of salt. It may be assumed that the power of adaptation is greater than the degree of deviations to which the cell may be subjected in its life. Red corpuscles, cells that are isotonic to about a 0.9% NaCl solution, will tolerate solutions from about 0.4 to a 1.2 per cent before suffering any loss in the continuity of the cell membrane; whether they would continue to functionate under such wide variations is not probable. Experiments in the injection of hypo- and hypertonic solutions into nephrectomized animals indicate that the body cells possess a noteworthy degree of toleration to variations in the molecular concentration of the circulating fluids; if the kidneys be retained in the experiment, the body promptly recovers the normal tonicity of the circulation. If the salt content of the blood is held normal but its content of protein reduced, the body soon recovers its normal content of blood protein by abstraction from the tissues. These compensations are the expressions of reciprocal physical reactions between the cells and the circulating fluids, though the details are not at all clear.

Now, have we any measurements tending to show that there are conditions of disease in which this balance of reciprocal physical relations between the cells and the circulating fluids may be disturbed to any notable degree? The normal freezing point of the blood varies in different persons and in the hands of different investigators from 0.52 degrees to 0.59 degree below that of water. Part of the variations are included in the Beckmann method of determining the freezing point. Much lies in the faulty manipulation of the Beckmann method. In the few observations that have been made with the method of Raoult, the depression has been between 0.55 and 0.58, and if we compare the results of corresponding estimations of the blood of different animals and apply the findings as corrections to the available observations upon human blood with the Beckmann instrument, we will obtain analogous figures. To what extent different individuals vary from each other, and to what extent the blood of the same individual will vary from time to time and under different circumstances, is not known.

The maintenance of a condition of hypertonicity would mean some abnormality whereby either the salt content of the blood is increased or the water content decreased; hypotonicity would mean some condition whereby the salt content of the blood is decreased or the water content increased. It may be said that all of the many estimations of the freezing point of the blood under conditions of disease have yielded figures within the limits of the normal as ascertained with the same methods of measurement. Now and then one observes a low or high figure, just as occasional lower and higher figures have been recorded for the normal. We may safely say that we possess today no data tending to show that a particular deviation of the molecular concentration of the blood is regularly associated with any particular disease. It is probably true that the blood in pregnancy displays a depression of the freezing point a little less than the normal, that during the active stage of croupous pneumonia the freezing point of the blood tends to be rather more depressed. One may occasionally, in nephritis and typhoid fever, in heart disease and other chronic diseases, as cirrhosis of the liver, see a high figure, and in some cachexias and the anemiæ a low figure. Even these sparse findings are in dire need of confirmation by more careful methods of measurement. In connection with investigations in heart disease, Korányi described a slight increase in the depression of the freezing point of the blood plasma associated with a lowered chloride content in the same. He found that when oxygen was passed through this blood the normal osmotic pressure was restored. This he explained by the investigations of Hamburger, that when the CO_2 of the blood is in excess, chlorion passes into the blood cells, and when the tension of CO_2 is removed, the chlorion returns to the plasma. One does not understand why the depression of the blood plasma should necessarily be increased, since these migrations are supposed to be in equi-ionic relations. The hypothesis further postulates that a CO_2 retention is present in all cases of cardiac insufficiency, and that in these cases the blood plasma has an alkaline reaction; these two postulations are not known to be true. The variations described by Korányi were not marked, and future investigations will be needed to determine the exact validity of the statements.

In the consideration of the freezing point of the urine we must obtain a clear idea of what is actually concerned in the molecular concentration of a urine and of the variable factors to which it is related. It is the efforts of the body to maintain a constant relation between the molecular concentration of the

circulating fluids and the body cells that account in part for the variations in the molecular concentration of the urine. There are, however, external factors.

The salt input of the body is limited to the alimentary tract. We consume the chlorides, sulphates, phosphates and traces of the nitrates of sodium, calcium, potassium, magnesium and iron. In addition, sulphur, phosporus and nitrogen are obtained in organic combination with the food, and these are eliminated as salts. The metabolic sulphur is eliminated in large part as easily dissociated salts of the common cations, in part as difficultly dissociated aromatic sulphates, in part as neutral sulphur in organic combination and not dissociable. The metabolic phosphorus is eliminated in large part as dissociable phosphates. The nitrogen is eliminated in large part as urea and other undissociated substances, in small part as dissociable ammonia salts. Iron is also ingested in organic form, to be eliminated in inorganic form.

The salt output of the body follows several routes. A certain part of the ingested salt is not absorbed. A certain part is eliminated by the intestinal tract, largely the salts of calcium and iron. There is some evidence that the intestinal elimination may be reciprocal to that of the kidneys and skin. A considerable amount of salt is eliminated by the sweat glands. The sweat may contain as much as one-half or three-quarters of one per cent of salt, largely chlorides. In profuse perspiration the percentage is usually less, but even the insensible perspiration deposits salt upon the skin. To what extent the elimination by the sweat glands is reciprocal to that of the kidneys is unknown. The tears contain a high percentage of salt. The larger part of the body salts are eliminated by the kidneys; the lower the salt ration, the less predominant is the role of the kidneys. The larger part of the salt input is not necessary to metabolism, but is purely an incident to taste.

The organic molecules of the body are eliminated in large part by the kidneys, the elimination by the intestinal tract, apart from the undigested residue of the food, and by the sweat glands, is very slight. The lungs eliminate, so far as known, nothing of note beyond carbon dioxide.

Equally important is the water input of the body. This is in large part determined by the tastes of the individual rather than by the necessities of metabolism. The route of elimination of the water is also to some extent a personal equation; some utilize the skin disproportionately, others the urinary tract largely. The respiratory output of water is quite constantly a function of the respiratory magnitude.

The molecular concentration of the urine is obviously the result of the interrelations of these external varying factors. Unless these are known and controlled, a particular deviation cannot be related to a particular disease, since a phenomenon cannot be a function of one variable unless all others are controlled. The diet must be constant in quantity and composition. It must be known how much of the food is absorbed, and whether there is a balance in the nitrogenous metabolism. In fasting without salt the organic molecules, the sulphates and the phosphates, are maintained fairly constant, while the chlorides rather rapidly decline to a minimum; beyond this the salt output will depend on the saline content of the drinking water. In over-feeding, the organic molecules and the related sulphates and to some extent phosphates, are very high, and if the salt input be not increased the rôle of the chlorides in the molecular concentration of the urine will be subordinated. The possibilities for unforseen and uncontrollable errors of great magnitude in investigations of the urine without control of the diet are so apparent that it is clear that only under the approved conditions of a metabolic experiment is it possible to attempt an accurate study. This has been practically never undertaken in the clinical studies on this subject.

The salt input must be known and constant. Beyond its relation to the water input, salt influences metabolism to some extent and tends to produce diuresis.

The water input must be known and controlled. Not only is there the direct relation between salt and water, excesses of water influence to some extent the digestion. The ideal water ration would be one that would contain all the salt in the output completely dissociated, so that the urine would contain only electrolytic ions and undissociated organic molecules, but no undissociated electrolytic molecules.

The urine must be free of abnormal constituents in such quantity as to influence the freezing point. Albuminuria would disturb but little. Glycosuria, however, might produce a notable variation.

The salt output of the alimentary tract must be known. It cannot be controlled, but if it be known it will make logical interpretation of the urinary findings more feasible.

Lastly, the water and salt output of the skin must be controlled, though it cannot be measured. This means that the external temperature and the muscular exertions must be held constant throughout the experiment. This is a factor of importance that seems to have been invariably disregarded. It is easy to produce variations in the molecular concentration of the urine by the simple act of perspiration, and this variation will be all the more marked because it affects sodium chloride.

When, now, in any investigation we wish to determine whether the molecular concentration of the urine is altered by heart disease, nephritis or any other disease, these factors must be known and controlled before any observed finding may be related to the disease under consideration. The roles of these denominated factors may be comprehended when we observe that the freezing point of the urine of normal persons living according to the dictates of their personal habits varies from 0.2 degrees to 3 degrees below that of water. Common fluctuations in the same person are from 0.5 degrees to 2 degrees. When one analyzes the published findings bearing on the freezing point of the urine under different conditions, it is clear that they are worthless for diagnosis or pathology. The fluctuations are so enormous, the contradictions so omnipresent, and the adventitious variables so uncontrolled and so obviously operative, that no other conclusion is justified.

Much was hoped of the estimation of the molecular concentration of the urine in the study of nephritis. This was, from the outset, a delusion, because the real problems of nephritis do not lie in this direction. Even though the intoxications of nephritis were supposed to be due to retention, to a disability of elimination, it was not to be supposed that this would be a block defect, affecting electrolytes and the different organic molecules in like proportion. Whatever the organic poison in nephritis, there was no warrant for the assumption that the power of total secretion would be parallel to this intoxication. Chronic intersitial nephritis, unquestionably the form of nephritis that is least susceptible of recovery, is accompanied by a normal elimination of both salts and metabolic constituents in the majority of cases, and yet uremia is proportionately more frequent here than in any other form of chronic Bright's disease. The real problems in nephritis are: Why has the kidney lost its power of retaining colloids, become permeable to the blood proteins? Upon what depends its increased impermeability to the passage of urinary constituents in those instances in nephritis in which such impermeability can be shown to exist? What are the relations of nephritis to the protein metabolism? How does nephritis cause arterio-sclerosis? What is the toxic agent in uremia? From

whence is it derived, and to what disturbance of the metabolism is it to be attributed? The kryoscopic investigations have not been able to eliminate even the problem of dropsy.

That the relations of the molecular concentration might be of the greatest interest when correctly determined, and interpretation cannot be questioned, but there was little reason to hope that the practical problems of nephritis would be approached from this direction. What the actual relations are in nephritis as well as in other diseases, is not known. No one has investigated the urine with the subjects under the proper control of the adventitious variables. The same considerations apply to the published investigation of the molecular concentration of the urine of cases of acute diseases, heart disease, chronic constitutional diseases, everywhere the simple freezing point of the urine under conditions devoid of control of the patient has yielded neither notable knowledge for pathology nor advance in diagnosis.

Many attempts have been made to obtain other and less shifting constants by the correlation of the freezing point with other urinary measurements. Thus arose the constant "depression of the freezing point x total elimination in cc." This constant is less shifting than the simple depression of the freezing point, but includes, nevertheless, the same factors of error unless determined under the proper conditions of control. The idea that the depression of the freezing point divided by the factor 1.85, and this then multiplied by the number of cc. of urine eliminated daily, would yield the gramme-molecules excreted per day, rests upon an error, since the electrolytes in the urine are not entirely dissociated. How large a final error is thus introduced we have no way of determining in so complex a fluid as urine. In practical work this constant has little more use than the simple reduction of the freezing point. It is not improved by dividing it by the weight of the subject, since such a procedure would bestow upon the metabolically inert bones and fat a controlling influence in the molecular concentration of the urine.

Among the constituents of urine that are operative in the depression of the freezing point sodium chloride is the most prominent. In the attempt to segregate this factor Korányi devised the constant "freezing point divided by sodium chloride %." The larger the depression due to the sodium chloride the lower will be the constant, the lower the relative content of sodium chloride the higher will be the constant. This constant is obviously exposed to all the variables specified, and is particularly influenced by the salt input and by the salt output of the perspiration. It varies, as observed in uncontrolled cases, from less than 0.9 to nearly 10.0, though usually to not more than 5 unless the diet is very abnormal in salt. An increase in the output of metabolic products will lower the factor, a reduction would raise the factor—assuming that the NaCl output remained constant. When the conditions of life are approximately controlled the variations are much less, from 1 to 2.5 possibly. What the factor might be under proper control is not known. This factor has been applied to the study of heart diseases by Korányi. The fact seems to be that the constant tends to increase with renal congestion without renal lesion. The theory of Korányi is that the glomeruli allow the salts of the blood to pass in proportion to their concentration in the blood plasma; as this glomerular excretion passes down the uriniferous tubule he supposes it to exchange salt for organic molecules in equimolecular proportions, and as these processes of reciprocal diffusion require time, the longer the fluid remains in the tubule and is exposed to this exchange the lower will be the content of sodium chloride and the higher the content of metabolic molecules. Whenever the constant is high, therefore, the conclusion is drawn that the velocity of the uriniferous stream is slowed and a renal congestion, due to low blood pressure, disturbed cardiac compensation, is diagnosticated.

The condition is observed independent of heart disease, even in the normal after severe exercise, and for these cases Korányi assumes that the blood has been, so to speak, deflected from the kidneys to the muscles. Korányi believes that this factor will be high in instances of heart disease so long as the kidneys are healthy, so soon as a nephritis sets in, the glomerular elimination of the salt is held not to be quantitative, and as the metabolic elimination of the lower tubule is also held to be disturbed, the factor will be irregular. Such a theory of renal secretion cannot be assumed. Now, however impossible the theory advanced by Korányi for the station of his factor, the facts seem to be in general as stated. It has been long known that in acute renal congestion the concentration of the urine is dependent upon a relatively greater concentration of organic molecules than of sodium chloride. To what extent this would be maintained under controlled conditions of observation is not known. The most valuable part of the test would lie in the marking of the point of establishment of renal lesion. Unfortunately the observations on this point have not been at all harmonious. The theory assumes a CO_2 retention in all cases of cardiac insufficiency, which is known not to be true. If the hypothesis of Korányi were true there would be an elimination of a relative excess of salt and a deficiency of the organic molecules in all conditions of quickened circulation and high blood pressure. Now this does not hold. Were this maintained in patients with arteriosclerosis, for example, it would within a few weeks lead to a notable reduction in the salt of the blood and the accumulation there of metabolic molecules, which we know does not occur. In the instances of cardiac congestion the hypothesis demands an excess of salt in the blood, which does not occur, so far as we have any knowledge. The relations of this factor are admitted by Korányi himself to become very irregular when a renal lesion sets in, and the results in nephritis are very contradictory.

Other constants have been obtained by the association in one way or other with the freezing point of the urine, of the osmotic pressure of the known content of sodium chloride, the total nitrogen elimination, the conductivity of the known content of sodium chloride, etc. These have all the same defects, in that the numerous variables have been uncontrolled.

The factor with the nitrogen has been applied particularly to nephritis, always with the assumption implied that there is a relation, a parallelism between the nephritis and the end products of nitrogenous metabolism. Such a relationship does not exist. The attempts to prophecy uremia by these methods have been entirely futile. Uremia occurs so often with a normal and complete elimination of both the salts and the metabolic molecules that all such speculations are futile. There is no parallelism between nephritis, extent of lesion or uraemic intoxication and the ability of the kidney to eliminate the normal urinary constituents. What kills in uremia is unquestionably not a reduction of a normal functuna (even in the cases where this occurs), but an abnormal substance, an intermediary intoxication of unknown nature. The same facts hold for eclampsia. The investigations of the molecular relations throw no light upon the disease.

The net result of the present investigations into the molecular concentration of the urine have led to few results. It is not only possible but probable that when these phenomena are studied under proper conditions of control with adequate methods, valuable results will he obtained. In the study of surgical conditions affecting the two kidneys invaluable results have been obtained with the method of

differential measurement of the segregated urines. Here the conditions are simple and the differential result measurable and under control. As a matter of strict fact, surgery has to date been the sole recipient of practical results from kryoscopic investigations of the urine. To the physicist and chemist it is mournful to contemplate to what extent of abuse the intrinsically good method of kryoscopy has been subjected in uncontrolled clinical investigations.

SOME REMARKS CONCERNING THE CONSERVATIVE TREATMENT OF SEVERE OCULAR INJURIES.

By FRANK ALLPORT, M. D., Chicago, Ill.

THE conservative treatment of severe injuries to the eyeball is a subject of great interest to railway surgeons, as such cases are constantly presenting themselves for care and advice. The importance of the eye for visual and cosmetic purposes is, of course, too well understood to warrant discussion, and it is, therefore, a foregone conclusion that every reasonable effort should be made to retain this important organ in as nearly a perfect condition as possible, both for its seeing qualities and also for the proper adornment of the human face. Nevertheless, in the enthusiasm for the preservation of an eyeball after a severe ocular injury, the surgeon should endeavor not to retain in the socket an eye which has not only been destroyed so far as visual purposes are concerned, and been mangled far past the beauty point, but has also reached a pathological condition where it has become a probable menace to the safety of the sole remaining eye. This, then, is what I mean by *conservatism* in the treatment of severe ocular injuries, and it often requires considerable experience and no little judgment to skillfully stand between the extremes of endeavoring to save too many eyes or of endeavoring to save too few.

It cannot be denied that many eyes are enucleated that by patience and skillful care might have been saved, and this course of ruthlessly sacrificing all eyes which are severely injured cannot be too strenuously deprecated. Extreme ocular traumas usually occur in workingmen, and railroads, machine shops, wire shops, etc., furnish a large proportion of these injuries. Certain argumentative considerations naturally present themselves upon the examination of severe bulbar accidents. In the first place an enucleation is clearly the easiest way out of the trouble, as it is much more difficult to save an eye than to remove it, and requires much less time in the hospital, usually less expense to the patient or corporation, and enables the patient to resume work in a much more expeditious manner. Time and money are thus almost invariably saved by removing a badly injured eye, rather than by making an effort for its salvation, a process which often lasts for weeks or even months, and is then frequently crowned by failure and a necessary eyeball enucleation. Such a termination of a protracted case is a humiliation to the surgeon and a disappointment to all parties concerned, and will frequently find the patient and his friends utterly opposed to the operation, while at first, under the influence of the physical and moral suffering and shock of the accident, they would, with almost invariable readiness, have acceded to any operative procedure proposed by the surgeon. At this juncture the patient often begins to wander from one office to the other, frequently falling into the hands of quacks who promise to effect a cure, needless money is spent, valuable time is consumed, and sometimes serious results, such as meningitis or sympathetic ophthalmia, follow, carrying with them a depressing lesson of the consequences of extreme conservatism and caution. Nevertheless, it should not be forgotten that as a rule the surgeon renders himself less liable to adverse criticism if he, whenever it is at all possible, extends to the patient a probationary period of at least a few days of active endeavor before he positively advises an eyeball enucleation, and reasonable patients usually feel much more reconciled to such a procedure if it has been preceded by a brief, active and manifest effort at ocular salvation. It must likewise be remembered that while we hold the bug-a-boo of meningitis and sympathetic ophthalmia over our patients' heads as a menace and as a legitimate means of inducing them to agree to our wishes, and to establish ourselves on firm ground in case of ultimate misfortune, these terminations of severe ocular injuries are in reality most remote in their probabilities. Do not misunderstand me as endeavoring to minimize their real importance, nor to underestimate their direful history when they actually appear. I believe that they should always be kept in mind and should invariably assist us in the formation of our counsel to patients, but I likewise believe that their occurrence is of extreme infrequency, as in a tolerably active practice of about twenty years in eye surgery I have never seen a case of meningitis proceeding from an ocular trauma, and have not seen to exceed three cases of sympathetic ophthalmia. Cases of purulent panophthalmitis rarely produce meningitis, as before this calamity occurs the pain and suffering become so severe as to induce patients themselves to be quite willing to be relieved by an enucleation, and even to voluntarily beg for such a surgical procedure. The danger of sympathetic ophthalmia, however, is of a more valid character, especially as the condition of the patient is so pitiably distressing, not to say hopeless, after this dreaded disease actually shows itself. It must also be remembered that severe ocular traumas usually occur in laboring men of limited intelligence and means and of migratory habits, roaming from one city to the other and from one surgeon to the other, and that they are quite inclined to seek the advice of quacks, whose counsel is usually of the worst possible character. It is, therefore, on the whole, unsafe to allow such patients to get away from proper surgical advice with a really menacing unenucleated eye in situ, as sympathetic ophthalmia is a most insidious foe, and one that should be avoided where real danger exists. In a case of severe ocular trauma where, perhaps, great laceration has occurred and where I feel that an enucleation is the proper step to take, I frequently say to my patients that an eye has only two functions, viz., sight and beauty, and that if both these functions have been unfortunately destroyed and the mangled and disfigured eye may also eventually become a menace to the health of the patient and the safety of the other eye—and will always remain a source of anxiety and care—it is much better to remove it by an operation that will produce a good, full, movable stump and wear an artificial shell which, if well fitted, will look better than a disfigured eye, and possess quite as much vision. Such arguments rarely fail to produce pliable patients.

The location of the wound should have much to do with our advice either one way or the other, as injuries in the posterior portion of the eye, back of the sclero-corneal junction or ciliary region, are much less dangerous than those anterior to the ciliary zone, while the most dangerous traumas of all are situated directly in the ciliary region, under which conditions a gloomy prognosis must surely be entertained, as small wounds in this locality are as a rule far more dangerous than even large lacerated injuries in any other situation.

The giant and other magnets, while they have undoubtedly saved many eyes otherwise unsavable, have, I think, greatly increased the danger of sympathetic ophthalmia, as through their mediumship many eyes are spared which may eventually become dangerous which without the magnet would unquestionably have been removed. Do not misunderstand me as decrying the magnet, for which I have the greatest respect, and which has saved more good eyes than it will ever

lose, but I do believe that the unwise and unskillful use of the magnet by surgeons who regard it as merely a powerful machine by which steel, etc., can be forcibly extracted from an eye without regard to method has, must and will be responsible for many lamentable results in ocular surgery. If such surgeons would but read the writings of Haab, Hirschberg and others on this interesting subject, in which they deliberately regard this operation, when properly performed, as the most delicate and difficult in ocular surgery, they would, I am sure, entertain for it a profound respect, and would not be so apt to regard it as a mere pulling contest. In this connection, however, I desire to say that I cannot entirely subscribe to the teachings of these masters in ophthalmology when they so tenaciously adhere to the anterior avenue of steel removal. If the steel is visible in the anterior segment of the eye, or if it is a very small piece, it is, of course, best to gently draw it into the anterior chamber with the Haab magnet before the cornea is opened, if possible, and then, after the corneal section has been made, to remove it with the large magnet or perhaps by a Hirschberg magnet, gently insinuated into the lips of the wound. But if the steel is in the posterior portion of the eye, or is of large size, I believe it is far better to make a proper incision through the sclera, etc., as near the site of the projectile as possible and to draw it out backwards rather than to drag it over the sensitive and vital anatomical elements constituting the anterior segment of the eyeball. I am well aware that much danger lurks in either method and that detached retina and choroid, hemorrhage, escape of vitreous, infection, etc., are to be feared if objects are withdrawn by the scleral opening. But these complications are, I think, less to be feared than will be the case if an effort is made to drag a jagged piece of metal over the ciliary body, around or through the lens, iris and cornea on to the point of a giant magnet, under which circumstances cyclitis and uveitis are greatly to be feared, together with cataract, infection, loss of vitreous, prolapse of iris, etc. For these reasons and others I cannot endorse the generally accepted doctrine of almost invariably extracting steel by the anterior route, but feel that many cases will be best operated through the sclera, and believe that each case should be carefully studied by itself. I am also convinced that the best interests of patients is not always served by extracting large pieces of steel from an eye which has been badly mangled and injured past all claims to beauty or utility, and feel that many such eyes had better be enucleated at once, thus saving much time and money, and avoiding the subsequent salvation of a sightless, atrophied stump, which must always remain a menace to the safety of the other eye.

It is commonly believed that the Haab magnet is an almost infallible guide as to the presence of steel, etc., within the ocular walls. While it is perhaps true that in a large majority of cases pain will be felt on the approach of a large magnet to an eye containing steel or iron, this rule is not by any means invariable, as I have myself proven in several cases of enucleated eyeballs where the magnet had been repeatedly tried without eliciting the slightest pain. The piece of steel may be very small, or it may be firmly retained in the inner scleral wall, or it may be encysted, under any of which circumstances the magnet may fail to produce pain and the surgeon may erroneously assume the absence of steel. Neither can the X-ray picture be relied upon to locate the presence of steel, etc., as I have seen several cases where the photographer found no steel where steel really existed, and at least two cases where he positively diagnosed the presence of steel in the eye where a subsequent enucleation for panophthalmitis clearly disproved his opinion. I would like also to correct a mistaken idea that wounds of the lens are always followed by cataract, as this notion is quite far removed from the truth. I have seen a number of cases where small foreign bodies have passed completely through the lens and dropped into the vitreous chamber, where the injury was only followed by a slight, localized opacity which, in some cases, practically disappeared, and I remember one case where I gently needed a lens for high myopia, hoping to produce a cataract, which was merely followed by a localized opacity where I had perforated the lens.

Before leaving this subject I desire to pay a tribute to a therapeutic remedy that has been my most patent ally in the salvation of many eyes that, I believe, would otherwise have been lost. I refer to the new silver preparations, and especially to silver-vitellin and Crede's ointment. These remedies I have grown by experience to regard as almost indispensable in menacing ocular injuries. I first began using silver-vitellin in the varying grades of purulent or muco-purulent conjunctivitis, and in cases of abraded or ulcerated cornea and also in infected conditions of the tear passages. It gave greater satisfaction than any drug I have ever used, and while I do not regard it as invincible in such diseases, I am but rarely disappointed in its use. I then began using it in my operative work, and in cases of cataract, iridectomy, etc., always endeavor to have a 25 per cent solution of silver-vitellin dropped into the eyes several times a day for about two days before the operation, and since adding this to my other preparatory measures, have never had a case of infection. Lately I have been dropping the solution over the field of operation directly after the operation in cataract and other bulbar operations, and have never had cause to regret it, and believe that it has played an important part in the production of good results. In cases where I have feared infection I have even allowed a little of the solution to run into the anterior chamber and have never been displeased with the results, as the dark staining wears away in a short time. In cases of severe ocular injury and after a magnet operation I use the solution freely, injecting it not only into the anterior chamber but into the vitreous chamber, and believe that thereby I have saved many eyes.

I almost hesitate to confide to you my method of using Crede's ointment in dangerous infected eyes, where, perhaps, suppuration has already been firmly established, and yet it is the truth we should seek, and I have seen such surprising results from the use of this preparation that I feel I should mention it in this paper, even though it is repugnant to our ideas of treating infected, suppurating eyes. I usually care for these infected and perhaps suppurating ocular traumas in the orthodox manner, that is, by cold packs, antiseptic irrigation, atropine, silver-vitellin, etc., during the day, but when night comes I direct that the eye be thoroughly cleansed, that silver-vitellin and perhaps atropine be used and anything else done that seems advisable. A thick plaster or poultice of Crede's ointment is then spread upon a piece of gauze, which is placed directly over the closed lids and secured in position by a soft bandage. This is allowed to remain all night and is removed in the morning for the resumption of the daily routine treatment. I have never regretted using the ointment, and have seen many eyes saved where such salvation seemed well nigh impossible. The amount of discharge is much lessened and it is surprising when the ointment is removed in the morning to see how clean the eye is and how the small amount of secretion has been drained from the eye to the ointment. I have even used this method of treatment in gonorrheal ophthalmia and have always been pleased with its effect. In addition to these remedies, in all cases of severe eyeball injuries I invariably and promptly place my patients on large doses of salicylate of soda, endeavoring to follow the rule of Gifford of giving them in the twenty-four hours one grain of the drug to each pound of the patient; for instance, I give a man weigning 150 pounds 150 grains of the medicine. I am satisfied that I have seen good results from this plan, although it sometimes produces acute cerebral

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excitement, which necessitates a temporary suspension of the drug.

In menacing cases of eyeball injuries I believe I have also seen good results from a few daily sweat baths, and this has almost become a routine procedure in instances of this kind.

The space permitted for this paper is, of course, too brief for me to enter fully into the various orthodox methods of caring for ocular traumas, nor is it necessary or desirable, for these details are well understood by you all. I have simply endeavored to discuss with you some of the reasons for endeavoring to save eyes and some of the indications for their removal. In addition to this I have taken the liberty of setting forth to you some particular methods of dealing with important conditions which I have found by personal experience to be most efficacious.

REPORT OF THE COMMITTEE ON VITAL STATISTICS.*

By WM. J. G. DAWSON, M. D., Chairman, Eldridge, Cal.

YOUR committee on vital statistics begs leave to submit the following report:

It was the original purpose to take excerpts from the various enactments passed by the legislature at its 36th session. This was found, upon brief investigation, to be impracticable and unsatisfactory, owing to the fact that the law had been so thoroughly changed. We therefore decided to submit in full the new laws governing the subject.

Assembly bill No. 339, introduced by Mr. Waste, relating to the State Board of Health, amends and re-enacts the following upon the subject of vital statistics:

It (the State Board of Health) shall maintain a bureau of vital statistics under the supervision of its executive officer, where shall be collected and recorded all births, marriages and deaths, burials and cremations within the state.

These statistics, together with the number of cases of communicable diseases, and such further comparative statistics and information as may be deemed of value to scientists, the medical profession, the general public and aid in the maintenance of good health conditions, may be published by the board in such manner and at such times as it may deem proper.

It shall have power to prescribe and enforce regulations for the embalming, cremation, burial, disinterment and transportation of the dead. It shall have power to prescribe the form of certificates of births and deaths, and of permits for burials, disinterment, cremation and transportation of the dead, and provide measures for their observance.

Assembly bill No. 346, introduced by Mr. Gates, and passed by the last legislature, covers the whole subject most thoroughly, and is as follows:

SECTION 1. That department of the State Board of Health known as the state bureau of vital statistics, shall provide for and superintend the complete and proper registration of deaths for legal, sanitary and statistical purposes.

SECTION 2. That for the purposes of this act the state shall be divided into registration districts as follows: Each city and county, city and incorporated town, and each county exclusive of the portion included within cities and incorporated towns, shall constitute a primary registration district.

SECTION 3. That the recorder of each city and county, county, city and incorporated town, and each city or town clerk where there is no city or town recorder, shall be the local registrar in and for such primary registration district, and shall perform all the duties of local registrar as hereinafter provided. Each local registrar shall immediately appoint, in writing, a deputy who shall be authorized to act in his stead in case of absence, death, illness or disability, and when it may appear necessary for the convenience of the people in any county, the local registrar is hereby authorized, with the approval of the state registrar of vital statistics, to appoint one or more proper and competent persons to act as sub-registrars, who shall be authorized to receive certificates of death and to issue burial permits or removal permits in and for such portions of the county as may be designated. Each sub-registrar shall note in legible writing over his signature the date each certificate of death was filed, and shall forthwith forward the certificate to the local registrar of the county, and in all cases before the eighth day of the following month; provided, that all sub-registrars shall be subject to the supervision and control of the state registrar of vital statistics.

SECTION 4. That the body or remains of no person whose death occurs in the state shall be interred, deposited in a vault, grave or tomb, cremated, disinterred or otherwise disposed of, or removed from or into any registration district until a permit for burial, disinterment or removal shall have been properly issued by the registrar of the registration district in which the death occurs. And no such burial or removal permit shall be issued by any registrar until a complete and satisfactory certificate and return of the death has been filed with him, as hereinafter required; provided, that in case of any death outside of the state, where the body is accompanied by a removal or transit permit issued in accordance with the law and the health regulations in force where the death occurred, such removal or transit permit shall be accepted as of the same authority as a permit from the local registrar when such removal or transit permit shall have indorsed thereon the written approval of the state registrar of vital statistics, or when said state registrar otherwise officially notifies the local registrar of his approval.

SECTION 5. Stillborn children, or those dead at birth shall be registered as deaths under this act, and a certificate of death and burial or removal permit in usual form shall be required. The medical certificate of cause of death shall be signed by the attending physician or midwife, and shall state the cause of death as "stillborn," with the cause of the stillbirth, if known; whether a premature birth, and, if born prematurely, the period of utero-gestation in months, if known.

SECTION 6. That the certificate of death shall be of the standard form recommended by the United States Census Office and the American Public Health Association, and shall contain the following items:

(1) Place of death, including state, county, township or town, city or village. If in a city, the ward, street and house number. If in a hospital or other institution, the name of the same to be given instead of the street and house number.

(2) Full name of decedent. If an unnamed child, the surname, preceded by "Unnamed."

(3) Sex.

(4) Color or race—as white, black (negro or negro descent), Indian, Chinese, Japanese or other.

(5) Conjugal condition—as single, married, widowed or divorced.

(6) Date of birth, including the year, month and day.

(7) Age, in years, months and days.

(8) Place of birth; state or foreign country.

(9) Name of father.

(10) Birthplace of father; state or foreign country.

(11) Maiden name of mother.

(12) Birthplace of mother; state or foreign country.

(13) Occupation; the occupation to be reported of any person who had any remunerative employment—women as well as men.

(14) Signature and address of informant.

(15) Date of death, including the year, month and day.

*Presented to the House of Delegates at the Thirty-fifth Annual Meeting of the State Society, Riverside, April, 1905.

(16) Statement of medical attendance on decedent, fact and time of death, including the time last seen alive.

(17) Cause of death, including the primary and immediate causes, and contributory causes or complications, if any, and the duration of each.

(18) Signature and address of physician or official making the medical certificate.

(19) Special information concerning deaths in hospitals and institutions and of persons dying away from home, including the former or usual residence, length of time at place of death, and place where the disease was contracted.

(20) Place of burial or removal.

(21) Date of burial or removal.

(22) Signature and address of undertaker.

(23) Official signature of registrar, with date when certificate was filed, and registered number.

The certificate shall be written legibly in permanent black ink, typewritten or printed, and no certificate shall be held to be complete and correct that does not supply all of the items of information specified above or satisfactorily account for the omission of any of said items.

The personal and statistical particulars (items 1 to 13), or such other items as shall be required by the state registrar, shall be authenticated by the signature of the informant, who may be any competent person acquainted with the facts.

The statement of facts relating to the disposition of the body shall be signed by the undertaker or person acting as such.

The medical certificate shall be made and signed by the physician, if any, last in attendance on the deceased, who shall specify the time in attendance, the time he last saw the deceased alive, and the hour of the day at which death occurred. He shall further state the cause of death so as to show the course of disease or sequence of causes resulting in death, giving the primary and immediate causes, and contributing causes, if any, and the duration of each. Indefinite and unsatisfactory terms indicating only symptoms of disease or conditions resulting from disease will not be held sufficient for issuing a burial or removal permit, and any certificate containing only such terms, as defined by the state registrar, shall be returned to the physician for correction or definition. Causes of death which may be the result of either disease or violence shall be carefully defined; and, if from violence, its nature shall be stated, and whether accidental, suicidal or homicidal. For cause of deaths in hospitals, institutions or away from home, the physician shall furnish the information required under this head, and shall state where, in his opinion, the disease was contracted. The cause of death and all other facts required shall in all cases be stated in accordance with the instructions and directions of the state registrar.

SECTION 7. In case of any death occurring without medical attendance, it shall be the duty of the undertaker to notify the registrar of such death, and when so notified the registrar shall inform the local health officer, and refer the case to him for immediate investigation and certification prior to issuing the permit; provided, that when the local health officer is not a qualified physician, or when there is no such official, and only in such cases, the registrar is authorized to make the certificate and return from the statement of relatives or other persons having adequate knowledge of the facts; provided further, that if the circumstances of the case render it probable that the death was caused by unlawful or suspicious means, the registrar shall then refer the case to the coroner for his investigation and certification, and the coroner shall, within three days after the inquest, furnish the local registrar where such death occurs a certificate in form and substance as required by the state registrar, and containing as many of the facts required by this act as can be ascertained. Said local registrar shall then forthwith transmit such certificate to the state registrar, retaining a copy thereof on file in his office.

SECTION 8. The undertaker, or person acting as undertaker, shall be responsible for obtaining and filing the certificate of death with the registrar and securing a burial or removal permit prior to any disposition of the body. He shall obtain the personal and statistical particulars required from the person best qualified to supply them, over the signature and address of his informant. He shall then present the certificate to the attending physician, if any, or to the health officer or coroner, as directed by the registrar, for the medical certificate of the cause of death and other particulars necessary to complete the record, as specified in the preceding section. And he shall then state the facts required relative to the date and place of burial, over his signature, and with his address, and present the completed certificate to the registrar within the time limit, if any, designated by the local board of health for the issuance of a burial or removal permit. The undertaker shall deliver the burial permit to the sexton or person in charge of the premises before interring the body, or attach it to the box containing the corpse, when shipped by any transportation company, to accompany same to destination, when it shall be accepted by the sexton as authority for the interment of the body.

SECTION 9. It shall be the duty of the local registrar to supply blank forms of certificates to such persons as require them. He shall carefully examine each certificate when presented for record, to see that it has been made out in accordance with the provisions of this act and the instructions of the state registrar, and if any certificate is incomplete or unsatisfactory it shall be his duty to call attention to the defects in the return, and to withhold issuing the burial or removal permit until it is corrected. He shall then number them in consecutive order, beginning with number one for the first death in each calendar year, and sign his name as registrar in attest of the date of filing in his office. If the certificate is properly executed and complete, he shall then issue a burial or removal permit to the undertaker; provided, that in case the death occurred from some disease that is held by the State Board of Health to be infectious, contagious or communicable and dangerous to the public health, no permit for the removal or other disposition of the body shall be granted by the registrar except under such conditions as may be prescribed by the state and local boards of health. He shall also make a complete and accurate copy of each certificate registered by him, upon a form identical with the original certificate, to be filed and permanently preserved in his office as the local record of such death, in such manner as directed by the state registrar. He shall, on or before the 8th day of each month, transmit to the state registrar all original certificates registered by him during the preceding month. If no deaths occurred in any month, he shall, on or before the 8th day of the following month, report that fact to the state registrar in such manner as the state registrar shall direct.

SECTION 10. If the interment or other disposition of the body is to be made in the registration district in which the death occurred, the wording of the burial permit may be limited to a statement by the registrar, and over his signature, that a satisfactory certificate of death having been filed with him, as required by law, permission is granted to inter, remove or otherwise dispose of the body of the deceased, stating the name, age, sex and cause of death, and other necessary details, upon the form prescribed by the state registrar. In case the interment or other disposition of the body is to be made in some registration district other than that in which the death occurred, a complete copy of the certificate of death shall be attached to and made a part of the permit.

SECTION 11. No sexton or person in charge of any

premises in which interments are made shall inter or permit the interment of any body unless it is accompanied by a burial, removal or transit permit as herein provided. Each sexton or person in charge of any burial ground shall indorse upon the permit the date of interment, over his signature, and shall return all permits so indorsed to the local registrar of his district within one day from the date of interment. He shall also keep a record of all interments made in the premises under his charge, stating the name of the deceased person, place of death, date of burial and name and address of the undertaker, which record shall at all times be open to public inspection.

SECTION 12. The state registrar shall prepare a sample form and blank for all registrars for use in registering, recording and preserving the returns or in otherwise carrying out the purposes of this act, and shall prepare and issue such detailed instructions as may be required to secure the uniform observance of its provisions and the maintenance of a perfect system of registration. No other forms of blanks shall be used than those prescribed by the state registrar. He shall carefully examine the certificates received monthly from the local registrars, and if any such are incomplete or unsatisfactory, he shall require such further information to be furnished as may be necessary to make the record satisfactory. All physicians, informants or undertakers connected with the case, and all other persons having knowledge of the facts, are hereby required to furnish such information as they may possess regarding any death, upon demand of the state registrar, in person, by mail or through the local registrar. He shall further arrange, bind and permanently preserve the certificates in a systematic manner, and shall prepare and maintain a comprehensive index of all deaths registered, showing the name of deceased, place and date of death, number of certificate and the volume in which it is contained. He shall inform all registrars what diseases are to be considered as infectious, contagious or communicable and dangerous to the public health, as decided by the State Board of Health, in order that when deaths occur from such diseases proper precautions may be taken to prevent the spreading of dangerous diseases, and all rules and regulations made by him for carrying out and enforcing the purposes of this act shall, when promulgated, have the same force and effect as if enacted by law.

SECTION 13. Whenever it may be alleged that the facts are not correctly stated in any certificate of death theretofore registered, the local registrar shall require a deposition under oath to be made by the person asserting the fact, to be supported by the depositions of two or more credible persons having knowledge of the facts, setting forth the changes necessary to make the record correct. Having received such depositions, he shall file them, and shall then draw a line through the incorrect statement or statements in the certificate, without erasing them, and make the necessary corrections, noting on the margin of the certificate his authority for so doing, and transmit the deposition, attached to the original certificate, when making his regular monthly returns to the state registrar. If the correction relates to a certificate previously returned to the state registrar, he shall transmit the deposition forthwith to the state registrar. If the correction is first made upon the original certificate on file in the state bureau of vital statistics, the state registrar shall transmit a certified copy of the original certificate, corrected as above, to the local registrar, who shall thereupon substitute such certified copy for the copy of the certificate in his records. All such corrections and marginal notes referring to them shall be legibly written in ink, typewritten or printed.

SECTION 14. Each local registrar shall be entitled to be paid the sum of not exceeding twenty-five cents for each death certificate properly and completely made out and registered with him, and by him returned to the state registrar on or before the eighth day of the following month, which sum shall cover and include the making out of the burial permit and the copy of the certificate to be filed and preserved in his office. And in case no deaths were registered during any month, the local registrars shall be entitled to a sum not exceeding twenty-five cents for each report to that effect, promptly made in accordance with the directions of the state registrar; provided, however, that all such compensations for such services shall be fixed by the Board of Supervisors, City Council or other governing body of such local registration district.

All amounts payable to registrars under the provisions of this act shall be paid by the treasurer or other lawful officer out of the funds of each registration district, upon warrants drawn by the local auditor or other proper local officer of such district, which warrants shall specify the number of certificates properly registered and reports promptly returned where no deaths are registered, with the amount due for each; provided, however, that no warrant shall be issued to any local registrar, or, if issued, shall be paid where notice is previously given by the state registrar to the auditor, treasurer or other proper officer of such registration district that the local registrar has failed to comply with the rules and regulations of the state bureau of vital statistics and the instructions of the state registrar.

SECTION 15. The state registrar shall, upon receipt, furnish any applicant a certified copy of the record of any death registered under provisions of this act, for the making and certification of which he shall be entitled to a fee of fifty cents, to be paid by the applicant. And any such copy of the record of a death, when properly certified by the state registrar to be a true copy thereof, shall be prima facie evidence in all courts and places of the facts therein stated. For any search of the files and records, when no certified copy is made, the state registrar shall be entitled to a fee of fifty cents for each hour or fractional hour of time of search, to be paid by the applicant. And the state registrar shall keep a true and correct account of all fees by him received under these provisions, and turn the same over to the state treasurer.

(To be continued.)

Certificates Revoked.

The certificates of O. C. Joslen, H. McGregory Wilson and L. H. Meadows, were revoked by the board December 23, 1905, for unprofessional conduct, viz., conviction of an offense involving moral turpitude, in the U. S. District Court, this city, in May, 1905. The offense consisted in sending through the mails a printed circular containing information as to the means of preventing conception and an offer to perform an abortion. The evidence was secured by a postoffice inspector and detective. Joslen is the notorious practitioner of Kearny and Market streets. The cases in the Judicial Court were conducted by U. S. Assistant District Attorney McKinley. The jurors were out but five minutes; the fines imposed were from three to five hundred dollars. The defense made by the attorneys for their defendants, before the board, "that this offense does not involve moral turpitude," made me blush for my profession. The time for appeal in the U. S. Courts is six months, and the board was lenient enough to allow this time to run out before passing judgment. The cases were tried by the board last August.

W. C. TAIT,
Attorney for the Board of Examiners.

Dr. William Fitch Cheney has moved his offices from 906 Polk street to the Shreve building, corner of Post street and Grant avenue.

PRELIMINARY REPORT ON PHLEBO-SCLEROSIS.*

By JULES B. FRANKENHEIMER, M. D., San Francisco.

WITHIN the last few years the importance of arterio-sclerosis, both of itself and in relation to other diseases, has been forced on the medical mind. The great impetus to this study has been the discovery of its relation to many conditions which give rise to clinical phenomena of the first importance. Sclerosis in the venous system, on the other hand, has not received much attention, probably because of its lack of practical interest. The present paper was suggested by the finding of a number of cases of phlebo-sclerosis in a certain class of diseases. Data were collected from cases as they were admitted to Dr. Hirschfelder's wards at the City and County Hospital.

The number of cases is too small to draw any absolute conclusions, but the results seemed to be striking enough to warrant some tentative deductions, which we hope to be able to substantiate by a much larger series of cases in the future. The one probable pathological factor which stands out prominently among the many possible causes is cough. Another factor to which we ascribe considerable importance is hard work. Though it is difficult to decide the relative amounts of work done by men in different occupations, nevertheless, it was found that, roughly speaking, the majority of hard workers were affected in varying degree. As to the location of the sclerosed veins, those that suffered most were in the most exposed positions, e. g., over bones, such as the internal malleolus—or where support from the surrounding tissue was the least.

Physiological factors, such as respiratory movements, kind and amount of food, clothes—first for their influence on the temperature of the body; second, in the way of obstruction to the circulation—such as armlets and garters, were not considered.

Most of the work done on this subject has been pathological, the deeper veins of the limbs and trunk receiving most attention. As to its occurrence, more generally than is noted clinically, most authors are agreed. Cases which show it most clearly are cachetic individuals in whom the peripheral veins are fairly well filled. When there is a considerable layer of subcutaneous fat, the condition, unless particularly investigated, is liable to be overlooked, especially, as has been found in this series, when only the slighter or moderate grades are present.

The question arises: Is every palpable vein a sclerotic vein? Much has been written on this question, and Mehnert justly says: "Only the microscopical examination of veins is the true test as to sclerosis." That there is a condition of pseudo-sclerosis both Schlesinger and Parkes Weber have shown. Schlesinger considers some cases of apparent phlebo-sclerosis in the extremities as due to a temporary contraction of the vein. Weber suggests that the compulsory rest in the hospital, with diminished circulation of blood through the limbs, causes some of the superficial veins to be comparatively empty and contracted. Have we, then, any clinical test to differentiate between apparent and true sclerosis? Bennett suggests placing the limb in hot water when the temporary contraction will disappear. He explains the condition of pseudo-sclerosis by increased vein function, and considers it a forerunner of the true sclerosis. If we agree with Bennett that the pseudo merges into the true sclerosis, we can, from a clinical standpoint, allow ourselves a margin of error in the selection of cases.

The object of this investigation was to determine the frequency and etiological factors of thickened veins and their possible diagnostic or prognostic significance. The work done was purely clinical, there being little opportunity for pathological research. The classification used was slight, moderate and marked. The slight grades were those in which the vein could be picked up in a fold of skin, palpated and rolled between the forefinger and thumb; the moderate an intensified condition of the slight; while those which felt like parchment or were calcareous were called marked. One hundred and eleven cases were investigated, in which 43 were negative, 45 had slight phlebo-sclerosis, 17 moderate and 6 marked. Of the total number of cases, 61.8% showed phlebo-sclerosis in some degree. Of the men 52% showed the condition, of the women 18%, a proportion of 3:1 in favor of the former. Whether this is due to less hard work among women, other things being equal, or to the better support given the veins by the greater amount of subcutaneous fat, could not be determined. Taking only the moderate and marked grades, we find phlebo-sclerosis present in 21% of all cases, the men showing 23%, the women 9%—about the same ratio as when all grades were considered.

Age.—Taking only the moderate and marked forms, the average age of those with the moderate form is 44 years, the youngest being 21 years. The average age of those with the marked form is 53 years; leaving out 2 cases (80 and 70 years), brings the average to 42 years.

It would seem that age, as in arterio-sclerosis, is a factor, but not of the same importance as in arterio-sclerosis.

Venous pressure.—Gaertner's method was used in trying to determine the venous pressure. The method proved unsatisfactory, so it was given up.

Relation to arterio-sclerosis.—There seems to be no marked parallelism between phlebo-sclerosis and arterio-sclerosis. In the 45 cases of slight vein thickening there was no arterio-sclerosis in 21 cases. Slight arterio-sclerosis in 17, moderate in 7 and marked in 1. Of the 17 cases of moderate phlebo-sclerosis, in 5 there was no arterio-sclerosis, in 8 slight arterio-sclerosis, in 3 moderate arterio-sclerosis and in 1 marked. The six marked cases of phlebo-sclerosis showed 1 without arterio-sclerosis, 2 with slight arterio-sclerosis and three with marked arterio-sclerosis. Thus of the 17 cases of moderate phlebo-sclerosis 76% had slight or no arterio-sclerosis, and of the 6 marked cases of phlebo-sclerosis 50% had slight or no arterio-sclerosis.

TABLE.

	AS neg	AS_1	AS_2	AS_3
PS_1	21	16	7	1
PS_2	5	8	8	1
PS_3	1	2	0	3

The influence of alcohol and tobacco.—Data were collected only on the excessive use of alcohol and tobacco. As the table shows, these articles seem to have some influence on the production of phlebo-sclerosis.

TABLE II.

	PS_1	PS_2	PS_3
Alcohol	24%	18%	50%
Tobacco	51%	30%	66%

Influence of lead.—Only cases in which lead poisoning had occurred or was present were tabulated. Of 10 cases, 4 were negative, 3 had slight phlebo-sclerosis, 2 moderate phlebo-sclerosis, and 1 marked. In two patients who were suffering from lead poisoning the condition was tabulated as slight. Lead does not appear to have any marked influence.

Syphilis.—Only cases (22) with a clear history or showing lesions were considered. Syphilis seems to play no direct part.

Relation to Varicose Veins.—These were found in 11 cases, or 10% of those examined. Five had no phlebo-sclerosis, 5 had slight phlebo-sclerosis, and 1 a moderate degree. It would appear that varicose veins are not common when phlebo-sclerosis is present, and that the moderate and marked forms of phlebo-sclerosis show them less frequently than the

*Read before the San Francisco County Medical Society.

negative or slight cases. This agrees with Fischer's statement, that in phlebo-sclerosis the regeneration of the elastic tissue almost always appears so soon that dilatation of the vein does not occur.

Relation to infectious diseases.—There seems to be no relation between phlebo-sclerosis and infectious diseases, past or present; pulmonary diseases, tuberculosis especially, excepted.

Relation to the disease for which the patient came to the hospital.—During the investigation it was found that phlebo-sclerosis occurred more often in those patients having cough or a thoracic disease than in other conditions. Of 48 cases of this character examined, only 3 were negative, i. e., showed no phlebo-sclerosis. The diagnosis in these 45 cases was pulmonary tuberculosis 30, pleurisy 1, empyema 2, chronic bronchitis and emphysema 5, cardiac disease 6, adherent pericardium and aneurysm 3, carcinoma of larynx 1.

Chest diseases and cough then occurred in 66% of all positive cases, and if we add 7 more cases who gave a history of chronic cough, but who were tabulated under other diagnoses, we have 76%. Of the cases of intra-thoracic disease 58% showed slight phlebo-sclerosis, 31% moderate and 11% marked. Putting it in another way, 58% of all mild cases, 82% of all moderate cases and 83% of all marked cases, gave a history of cough or thoracic disease. These figures seem to show a great preponderance of the moderate and marked forms of phlebo-sclerosis in chest cases.

In support of this observation it may be said that in 1857 Virchow observed that in valvular lesions of the left heart or chronic affections of the lungs which cause venous stasis, not only the arteries of the lung, but also the entrances of the vena cavae and the liver veins show hyaline thickening. (In both classes of cases cough would be present.) Janvier also remarks in his thesis of 1903 that most of the cases suffered from well-advanced tuberculosis or intra-thoracic disease.

The cause of this apparent association was sought for. Many authors agree with Fischer and Thoma that phlebo-sclerosis, like arterio-sclerosis, is a general disease, with probably the same causes, though it may be local, that angio-sclerosis is an inflammation with unexplained etiology, that in the circulating blood toxines or products of disturbances of metabolism, etc., cause a disappearance, a degeneration of the elastic tissue and so a compensatory thickening—an angio-sclerosis.

In trying to explain this association of chest cases and phlebo-sclerosis, we first considered the possible action of a toxine circulating in the blood. Tubercular toxin seemed to fit the majority of cases.

Two cases were found who had tubercular sinuses lasting for several years—one of the elbow, the other of the shoulder. Both cases showed clinical signs of slight pulmonary involvment, but without much cough. In one of them there was no phlebo-sclerosis, in the other a very slight grade.

Again, two patients with very acute pulmonary tuberculosis were examined; one case had lasted six weeks, the other two months. In one there was no phlebo-sclerosis, in the other it was very slight. The absence of phlebo-sclerosis in these two classes of cases, those with the tubercular sinuses and those with rapid development of pulmonary tuberculosis, seemed to negative the tubercular toxine theory. The recital of the above cases is merely a suggestion.

That phlebo-sclerosis is capable of rapid development was shown by a case of chronic pericarditis, pleurisy and tuberculosis, who on admission was tabulated as slight phlebo-sclerosis; three months later one of the subcutaneous veins of his arm was like a pipe stem.

On seeking another explanation, cough was considered as a factor. The sudden increase of intra-thoracic pressure which occurs on coughing causes a reflux of blood into the veins. The sharp impact of the column of blood injures the elastic coat of the vein; this injury being the starting point for the inflammatory or regenerative thickening. In one of his conclusions Sachs remarks that "diffuse phlebo-sclerosis and arterio-sclerosis are found mostly in those regions where the lateral pressure of the blood suffers quick or large variations which hinder the regulation of the vessel tonus." We have found, further, that in chest cases the phlebo-sclerosis occurs mostly or is most marked in the upper extremities. This might be explained by the fact that the column of blood, having a shorter distance and a more direct route to travel, the shock, and hence the injury to the veins, will be greater than in the lower extremities.

There is some difference of opinion among authors as to where phlebo-sclerosis shows itself most frequently. Bregman states "that the slighter grades of phlebo-sclerosis are proportionately more frequent than the moderate and marked grades, especially in the upper and lower extremities, the most marked, however, in the upper." The explanation offered is that in the propulsion of blood the supporting muscular contractions are fewer. On the other hand Sachs concludes that the veins of the lower extremity are oftener and more severely affected than those of the upper extremity.

In men doing heavy work, other things being equal, phlebo-sclerosis is found mostly in the lower limbs. The explanation assumed is that in heavy lifting or hard work of any kind a column of blood varying in height from two to four feet is the additional factor which determines the lower limbs to be affected more than the upper.

It is rather striking that in the chronic venous congestion of cardiac disease, the moderate and marked forms of phlebo-sclerosis are not common. This fact also lends some negative support to the view advanced above, that cough is one of the main factors in the production of phlebo-sclerosis and that venous congestion does not play such an important role.

Conclusions:

1. Phlebo-sclerosis is more common than is generally supposed.
2. While there is no direct relationship, age predisposes to it.
3. There is no direct parallelism between phlebo-sclerosis and arterio-sclerosis.
4. The excessive use of alcohol and tobacco seems to be an etiological factor, directly or indirectly.
5. Lead poisoning and syphilis, contrary to expectation, have probably slight or no influence on the production of phlebo-sclerosis.
6. The comparative infrequency of varicose veins in cases of phlebo-sclerosis seems to show that phlebo-sclerosis is a conservative rather than a degenerative process.
7. Previous infectious diseases (except tuberculosis) seem to play no part in the production of phlebo-sclerosis.
8. Apparently phlebo-sclerosis has no diagnostic or prognostic significance.
9. While there may be many causes of phlebo-sclerosis which we have not determined, the most important factor (judging from this short series of cases) is cough. The purely mechanical trauma being the starting point for the sclerosis.

Patients with long and thick foreskins, when suffering from gonorrhea, are rather unfavorable subjects for a speedy cure. The prepuce seems to keep the urethra in an abnormally hyperemic condition, thus favoring microbial growth.—*International Journal of Surgery.*

WIDENING OF THE PELVIS BY PUBIOTOMY—SYNOPSIS OF A THESIS BY DR. A. VAN CAUVENBERGHE—SERVICE OF PROF. LEOPOLD, DRESDEN.

Translated from the French by GRACE L. THORNE, M. D., Dresden.

IT IS within a comparatively short time that the operation of pubiotomy has begun to be really practiced. From all sides evidence is given of women successfully operated upon, and it seems well proven that pubiotomy is destined to rival symphysiotomy and Cæsarian section, with, of course, relative indications.

It is interesting in the light of the above statements to experiment on the cadaver, by taking measurements, in order to ascertain what changes take place in the pelvic brim in this operation, and what increase can be obtained without causing serious injury to the articulations. In other words, what the greatest degree of contraction is which permits of the operation. The cadavers were not selected. Women of different ages, nu'lipara and multipara, those having normal or abnormal pelves were taken. Those only whose pelvis had been manifestly diseased were not used.

The operation on the living is comparatively new. According to Van de Velde, the first 5 operations were made by Bonardi of Lugano, 1897; Caederini of Bologna and Van de Velde of Haarlem, 1901; Gigli of Florence, 1902, and another by Van de Velde of Haarlem.

The idea of the operation has existed for a long time, and was studied by Champion of Bar-le-Duc and Stoltz, but Gigli of Florence revived it in 1902 and gave to it the technic. Since 1902 the operation has been more and more frequently attempted, until up to the present day 33 cases have been published, 5 of which were performed in Dresden by Leopold and his assistants, with good results.

Pubiotomy consists in the artificial widening of the pelvis by means of section of the pubes near the symphysis. To clearly understand the changes brought about in the pelvis by the operation, measurements of the pelvic diameters must be taken before and after section.

The operation adopted by Doderlein and also successfully employed by Leopold will be described, as it seems the most simple.

A transverse incision two to four cm. in length is made over the pectineal eminence of one side, and a needle somewhat resembling a Deschamp, but longer and terminating in a small hook, is guided by the finger and passed along the posterior surface of the bone from above downward, and brought out through the labium majus, without a previous incision being made. A Gigli saw is attached to the hook, and both are returned through the wound. A spontaneous separation of the two cut ends of the bone occurs on section, which varies on the cadaver between 0.5 cm. and 1 cm. On the living, this separation is greater, and is increased on abduction of the thighs, and is often sufficient to allow of spontaneous delivery, which is the chief advantage of the operation. This should not be produced too violently, as Doderlein acknowledges that the injuries to the soft parts, and fever occurring in his fourth case, was due to a too rapid separation of the bones. It is advisable, in order to prevent a too sudden separation, to apply lateral pressure to the pelvis, or an elastic girdle that can be gradually relaxed.

How are we to measure the anatomical and obstetrical conjugate diameters? In the operation of symphysiotomy section, through the symphysis divides the pelvis into two equal halves. The antero-posterior diameter must end at a point which joins the two bony portions of the pubes, and which is nearly parallel with the transverse diameter of the pelvis. In pubiotomy the conditions are not quite the same. Section of the pubes here divides the pelvis into two unequal halves. Experiments show that the smaller division (on the side of the section) is brought on a more anterior plane compared to the other side. Therefore, the plane that joins the bony surfaces will no longer be parallel to the transverse diameter, but will be at a certain angle to it. Consequently, the antero-posterior diameter terminates anteriorly at this plane also, at an angle, and is greater than that obtained by symphysiotomy. It should be added that the pubic bone is thicker at the symphysis than the rami on either side. The operation having for its result the displacement laterally of the median portion of the pubes, the plane which joins the two bony surfaces will no longer be parallel to the transverse diameter of the pelvis, but will be at a less acute angle to it, so much the less acute owing to the greater thickness of bone—the antero-posterior diameter varying in proportion. The last fact explains why in some cases the antero-posterior diameter increases more rapidly than in others.

It is needless to add that after section the soft parts are put upon the stretch, allowing a still greater increase in the antero-posterior diameter. This is of practical importance. The right sacro-iliac articulation is weaker than the left. Therefore, if we exert equal traction on both articulations, the right one will be the first one to suffer injury, which occurs in symphysiotomy. In pubiotomy the result depends entirely upon which side the operation is made. If the operation is done on the right side, the traction made on the right sacro-iliac synchondrosis will be greater than on the left, and injury to this side will occur sooner. If the operation is done on the left side, it is on that side that the greatest traction is made—then either: (a) the difference between the resistance of the two articulations is very marked and the right is the first to rupture, or (b) the difference is less marked and both articular capsules rupture, or (c) both articulations are of equal resistance, and the left capsule ruptures first.

The results depend also on the distance of the section from the symphysis, the nearer it is to the median line, the more closely the operation approaches symphysiotomy. The results of the two operations resemble each other regarding the increase in the diameters. It should be remembered that the sacro-iliac articulation is more elastic in the gravid than in the non-gravid state.

The difference in the resistance of the sacro-iliac synchondroses results in an asymetric widening of the pelvis. It is the side upon which the section is made which widens the most. The measurement of the oblique diameters best demonstrates the asymetric increase of the pelvic capacity.

Before the operation the right oblique is generally greater than the left oblique diameter, which is to be explained by the greater use of the right leg. This difference in the oblique diameters is not constant in all instances. In one case the left oblique was greater than the right, due to an abnormality of the pelvis.

If the section is made through the symphysis, it has been shown by Doderlein that the left oblique begins to increase first and to a greater degree than the right, due to the difference in the resistance of the two articulations.

Pubiotomy confirms these results. If the section is made on the left side, it is the left sacro-iliac synchondrosis that yields the most, or at least more than with a symphysiotomy, or right-sided pubiotomy, and the right oblique diameter increases more than the left.

We see by given instances that with a limited or moderate separation of the pubic bone the sacro-iliac articulation corresponding to the operated side yields the most, but on a still further separation the latter also yields a little.

In the first stage, then, the oblique diameter cor-

responding to the operated side increases first. In the second stage the opposite oblique diameter increases, sometimes equaling that of the operated side. In the third stage the latter increases still more, and the difference between the two diameters becomes again greater. The antero-posterior diameters increase a little at first. On further separation of the cut ends of the bone from 2 cm. to 4 cm. they increase still more. Finally, however, this increase is lessened by the rotation of the ilia as on an axis.

With a separation in front of 4 cm. the conjugata vera on an average reaches nearly the maximum increase of 1.6 cm. In one instance only an increase of 1.3 cm. was obtained. The case was a woman 74 years old, and after a separation of 4 cm. the articular capsules ruptured.

With a separation of 6 cm. the increase in the conjugata vera varies from 1.7 cm. to 2 cm., the last figure being more frequent. The transverse diameter increases under the same conditions 2.5 cm. to 3 cm.

On separating the pubes 4 cm. to 5 cm. the sacro-iliac articulations stretch about a finger's breadth, slightly more on one side than on the other, according to the side on which the section is made. This space is measured from the anterior borders of the articulations and averages from 2 cm. to 3 cm.

Before concluding we will add a few words about bilateral pubiotomy. In order to ascertain how much the antero-posterior diameters are increased by the operation, two very different cases were taken. Section on either side of the pubes was made, without disturbing the position of the internal genital organs. The median portion, as liberated by the section, was carried as far forward as possible. After section the conjugata vera showed an increase of 1.2 cm. We can only take the conjugata vera into consideration in bilateral pubiotomy, as the median parts are not fixed. The experiment shows that the antero-posterior diameter increases in the same degree as in unilateral pubiotomy. As for the other pelvic diameters, they are the same as for symphysiotomy. As to its results the question of complete recovery always remains doubtful.

Simple or unilateral pubiotomy gives such good results that it seems inadvisable to run the risk of a more complicated operation. In cases where high degrees of contraction exist, the operation would be according to the case—embryotomy, Cæsarian section or a Parro. Viewed from another standpoint, however, bilateral pubiotomy seems to offer great advantages, and it is in such cases where pubiotomy has already been performed, pregnancy again occurring and an operation has to be considered.

Attention may be called to the splendid results obtained by pubiotomy in a woman who had again become pregnant, mentioned by Van de Velde in his third case. He allowed a space a finger's breadth to remain between the cut ends of the pubes. After 3 weeks a sufficiently firm callus formed, and the pelvis remained permanently enlarged. Since then he has adopted this method, and has had good results.

It may be observed that in symphysiotomy a separation of the articular surfaces is not allowed to exist. If later such a separation is found, it is to be looked upon as an accident, though a fortunate one sometimes.

There are cases where the permanent widening of the pelvis does not suffice. Then a pubiotomy of the other side can be easily made in event of the woman again becoming pregnant. The separation of the bony surfaces need not be as wide as in the first operation, and a callus is certain to form. In such an operation all the advantages of pubiotomy are combined.

Conclusions. A separation of the cut ends of 3 cm. gives an average increase as follows: Conjugata vera 1 cm., transverse 1.4 cm., oblique 1.3 cm.

A separation of the pubes 4 cm. causes no injury to the sacro-iliac joint.

A separation of 6 cm. is not advisable, although the conjugata vera increases 1.8 cm. to 2 cm., and the articular capsules usually rupture, but in some cases we have made a separation of 8 cm. with no rupture.

What degree of contraction is the limit of the operation?

There are many cases successfully operated upon where the conjugata vera measured only 7.5 cm., and even 7 cm.

It seems to us that above all the size of the child should be taken into consideration. It is precisely for the reason that the first child is smallest usually that Leopold has seen so many primipara deliver spontaneously, even where the conjugata vera measured only 7.5 cm. But assuming the child to be of medium size, 7 cm. is not the extreme limit of contraction. It is in fact generally admitted that a conjugata vera of 6.75 cm. is the greatest degree of contraction fixed by symphysiotomy. (Morisani, Pinard, Zweifel.) Furthermore they admit that with symphysiotomy the conjugata vera increases only 1 cm., even where the bony ends anteriorly are separated 5 cm.

We may be permitted in the light of results from experiments on the cadaver, to allow for pubiotomy a limit below 6.75 cm. fixed for symphysiotomy. We believe that we do not go too far in saying that 6.5 cm. is the limit.

The side for operation is the one on which we wish to obtain the longest diameter; that is to say, in a head presentation, the side to which the occiput points, or if version is anticipated, the side on which the extremities are felt. We will, however, make this reservation. In spite of the advantages of this side for operation it is contra-indicated in extensive varicosities, hernia, etc.

The operation is performed on primipara, with much less danger than symphysiotomy. The bladder and urethra retain their support in the median line, the soft parts are thicker laterally than in the median line, and finally there is no danger of hemorrhage.

We found no particular advantages in bilateral pubiotomy. It does not give better results. On the contrary, the chances of complete recovery are not so promising.

SEMI-ANNUAL ADDRESS OF PRESIDENT OF SANTA CLARA COUNTY MEDICAL SOCIETY.*

By J. LAMBERT ASAY, M. D., San Jose.

THIS is the last meeting of the year by virtue of the by-law you have made to accord with the rules of the Medical Society of the State of California. Though this change in our official year has been operative but six months, its advisability has been proven. It is owing to these altered conditions that I now ask your attention for a few moments to some thoughts which have occurred to me during my administration as your President, and which I believe worthy of your consideration.

Growth and Prosperity. Of the growth and prosperity of your society others may speak rather than myself. Certainly much has been accomplished by having an efficient Secretary to whom is due every praise for his thoroughness and painstaking endeavors. He has spared neither time, labor, personal, nor pecuniary sacrifice to help build up this society. He has made his office what it should be, the key to the enviable position the society holds as a unit in our State organization.

It has been your good fortune, during my term of office so far, to have active standing committees. The Committee on Ethics, contrary to usual custom, has had much to do and has done it well, as its reports show. The Executive Committee is to be commended for its industry, discretion and perse-

*Read before the Santa Clara County Medical Society at the Semi-Annual Meeting held December 20, 1905.

verance in providing suitable quarters for our meetings; for their selection of papers and clinical cases which have afforded able discussion and profitable entertainment. The Finance Committee has been energetic and successful in its plans to place the society on a permanently sound financial basis, thus doing away with irregular assessments, which, though at the time necessary, were nevertheless, always unlooked for and undesirable. With all this, what good could have accrued without your presence at our meetings; your manifested interest in the work; your unlimited expressions of approval and marked enthusiasm? To you as members, and not forgetting the "Old Guard" whose numbers still distinguish themselves at roll call and are among the first to cry "advance," let me commend your loyalty; your zeal; the courage of outspokenness with which you have met every issue. Let me praise you for your scholarship and intelligence as demonstrated in our clinical exhibitions and scientific discussions, and besides these for your efforts in placing your society, though fourth in numerical strength, in the lead in potency, good influences, and professional importance of county organizations in California.

Let us not be content with what we have already gained. If we would wear the laurels we must strive for and win them. Do not halt, but go on in this grand plan of organization until every ethical licensed physician in Santa Clara County, who is not stuffed and hindered with self-vanity; shackled with his small individuality; his jealousies; his pathy; his open indifference to the welfare of the whole; the doctor who declares he can learn nothing by association with his fellows, shall be brought in and enrolled as a member of this society. Experience teaches that, with little effort on your part, this can be done. We must do it. If we judge by the history of the past and the indications of the present, in a year more the medical profession of this State will again be assailed in the halls of the legislature with more determination and by forces better equipped than ever before; the unlettered and unlearned; the venal hordes which in times gone by have sought our professional ruin. These will be encouraged by a hostile press subsidized by the association of nostrum and patent medicine proprietors. As once before the Eddypaths, osteopaths, naturopaths will combine and rally under the leadership of the mercenary and baser element of our own schools to repeal our ideal law, that the innocent and unsuspicious, looking for some miracle to heal their ills; some newly invented device to restore to their emaciated bodies the fulness of health, are herded as a golden feast for the cunning charlatans of the earth and the disciples of fanaticism. The assault upon us will be fierce; the struggle desperate. We need reinforcements to oppose them and snatch a decisive victory.

Education of the Public. The education of the public in matters relating to it and the physician should receive our consideration. Let us invite the intelligent laity to our meetings to hear a discussion in which it should be interested and take part. For instance let us ask the clergy to come and listen to a dissertation on secret medicines and nostrums that defile the body and destroy the soul by producing the cocaine and drunk habit, which have been exposed in *Collier's Weekly* and our own literature, that these reverend gentlemen may in turn warn their flocks of danger from their use. At another meeting let us call in the lawyers and judges of our courts. Expound to them the usefulness of our medical law to themselves and the people. Show them why courts ought to select their own medical expert witnesses instead of depending upon the testimony of those appearing on behalf of either side to the controversy. Again it would be well to have a talk with the educators in our public schools, and by no means should the druggist be overlooked.

Revenue. While our organization is professional, yet it cannot be divested of certain financial problems. This like all county societies cannot exist without revenue. Commerce, trade, banks and all business assume that their fiscal year begins on the first day of January and ends the following 31st day of December of each calendar year. Our State organization and this society have by proper legislation adopted this rule.

Our obligation to the State Society of two dollars annually on each person carried on our rolls on the first day of January of each year and payable to it not later than the first day of February following should, in all business honor, be promptly met. This, however, cannot be done unless members carry into the affairs of the society those business rules of scrupulous promptness which govern their other personal dealings and liquidation of indebtedness. It is extremely embarrassing to the finances of the society to have members proscrastinate in these payments and permit them to drag along to the year's end when the dues of the next year become due. This is to be attributed to thoughtlessness on the part of the delinquent together with infrequent attendance at, or total absentation from our meetings. There are drones in every hive. This society is no exception. It is neither the duty of the Secretary nor Finance Committee to go from office to office, soliciting payments, but rather that the member be present at the meeting of the opening year and then and there cancel his debt, or if unable to be present then to respond quickly to notice of such delinquency sent him by the Secretary.

The annual dues to this society are "payable in advance on or before the date of the regular meeting in January." Each member should be careful not to delay his payment beyond this time, not only that punctuality may characterize our remittances to the State Secretary, but that it will lighten the burden of our own Secretary and save him the mortification and the society the expense of persistent dunning.

Strict interpretation of our by-laws would determine that no member is in good standing until his dues are paid. He is therefore debarred from certain privileges without absolutely losing his membership in both this and the State Society until the expiration of the year.

Codifying Amendments to By-Laws. Our laws have been so amended and altered from the original in the last three years, owing to necessity in conforming to the regulations of the State Society, that in some instances the language is ambiguous and the intent uncertain. I recommend that a committee be appointed to codify all such amendments and to suggest to the society any further alterations in our by-laws it may deem advisable, upon the adoption of which a sufficient number be printed for distribution among members.

Business Meetings. As our society grows, business accumulates and is often hurried without sufficient consideration, to give room for full reading and ample discussion of scientific papers and clinics. Hence either one or the other must suffer from this circumstance. I am loth to cut short a paper or limit it to a specified time. I would not have it emasculated, for it may have taken the writer thereof weeks, months or years to prepare it. One of two things is then necessary; either to follow the examples of San Francisco, Alameda and some other county societies, and have the routine business transacted by a board of councilors in which might be included, beside the officers of the society, the four principal standing committees, viz., Executive, Finance, Ethics and Admission. Or the society should hold two stated meetings in the month, one devoted to business, the other to clinics and reading of papers.

Contract Practice. The last subject to which I

shall refer, I approach with hesitancy and reluctance, but I believe it would savor of moral cowardice to pass it unnoticed. It is the matter of contract lodge and hospital practice. I bespeak for it your calm and dispassionate consideration. I am not sure that there is not a resolution on our books of several years' standing condemning and forbidding it. If so, it has become a dead law. Our older members know of the written agreement made for three years and signed by every physician then practicing in this county that not one of them would engage in such contract work, and how upon the expiration of its term the doors were again opened wide to this very questionable practice.

The State Society in a written communication to this and all county societies has requested each to express its views concerning the ethics of lodge and hospital contract practice, that it may take action on the subject at its next meeting in April. Many of the county societies have responded, all giving their opinion that such practice is unethical. This society, as yet, has given no definite answer, hence its vote neither for nor against is recorded.

For my own part I regret that contract lodge and hospital practice has been revived in this county. I believe it to be highly detrimental to the best interests of our profession and that it lowers the dignity of our calling in the very minds of those who employ lodge or contract doctors. A great percentage of the members of such societies and lodges belong to labor unions who insist upon and will not work for a less wage than that fixed by their union, even though he be an incompetent. These lodges and societies make no contract with the butcher, the baker, the grocer, the milkman nor clothing merchant for community rates. They regard the goods of these tradespeople of far more values than the services of a lodge physician and look upon the latter and druggist as legitimate prey. Labor unions denounce as "scabs" all who violate union rules and boycott the physician as readily as any other employer who hires non-union labor. While, in their unions, lodges, or societies, these persons are mindful of their own interest and exacting for themselves in wages and restricted hours of work, they seem wholly disregardful of those who by virtue of a profession are unable to affiliate with their unions or federated trades. In a word they always buy where they can buy cheapest, more often without regard to quality, and the services of a physician are no exception to other purchasable commodities. They also realize that the physican's hours, from the very nature of his profession, are not and cannot be circumscribed, therefore he is a fit subject for vassalage and his employment by them is servile.

I am adverse to using harsh measures at the present time to control lodge practice. I would rather we attempt to educate the conscience and appeal to the manhood of these physicians. If we can make them see that, for an ephemeral money benefit, they are surely injuring their own future social and professional advancement; that they are degrading their profession and humiliating their professional brotherhood; that but a bare existence, a reputation for cheapness and mediocrity lies ahead, I believe they will soon cast the evil aside. Let us do a little missionary work. Try persuasion again. Send out your committee once more, perhaps this time the leaven that leaveneth the whole lump will work. Let professional ostracism be our last resort.

The transformation of uterine fibromata into malignant growths is comparatively common, and hence the possibility of such an occurrence should always be taken into consideration in the prognosis and treatment.—*International Journal of Surgery.*

THE PROPRIETY OF CHOLECYSTECTOMY AS AN INITIAL PROCEDURE IN GALL BLADDER SURGERY.*

By THOMAS W. HUNTINGTON, M. D. San Francisco.

THE following case aptly illustrates several points which are of extreme significance in gall bladder surgery:

First: The necessity for the preservation of the gall bladder for purposes of direct drainage in certain cases. Second: The occasional necessity of the establishment of an artificial communication between the liver and the duodenum in the presence of permanent obstruction of the common duct. Third: The impropriety of cholecystectomy as an initial procedure unless the present and future patency of the common duct can be absolutely assured.

The patient was a stout plethoric woman, 55 years of age, married and mother of several children.

Family history unimportant.

There was no history of typhoid fever nor other previous illnesses. Was perfectly well until about 10 years ago, when she began to experience occasional attacks of so-called acute indigestion. These attacks were always accompanied by pain, sometimes severe, and were frequently accompanied by vomiting. Icterus of brief duration was an occasional, though not constant feature of these attacks. From year to year her trouble became more accentuated and for the past 2 or 3 years she has undergone several severe illnesses which were directly in line with the foregoing history. On these occasions she would frequently have a chill, followed by fever, vomiting and later the skin would manifest a more or less positive icteric stain. During these exacerbations it was noted many times that the stools would become clay-colored, while the urine would present the usual changes. Absence of bile in the stools would sometimes persist for several days after partial recovery from such an attack.

On the 9th of April, 1905, she was subject to an unusually violent attack suggesting strongly a gastric crisis. The pain was so severe as to cause shock almost to the point of collapse. I saw her on the morning of April 10th in consultation with Dr. Edna R. Fields. During the previous night morphine had been administered freely, temperature had risen to 103½° and the patient's condition was such as to arouse one's apprehension. She was markedly jaundiced. On inspection the abdomen was found to be slightly distended and there was tenderness on palpation over its entire area. Tenderness, however, was focalized at the Mayo-Robson point, where she was acutely sensitive and sharply resented efforts at percussion. Deep pressure at this point was intolerable. For the past 48 hours stools had been almost entirely devoid of bile pigment. A blood count showed a leukocytosis of 22,000. The diagnosis of gall bladder disease was definitely made and operation determined upon the following day.

On exposing the gall bladder by a vertical incision on the outer border of the right rectus it was found about the size of a large Bartlett pear. It contained 16 large stones. The walls of the gall bladder were greatly thickened and gave evidence through adhesions to adjacent structures of repeated inflammatory attacks. In addition to the gall stones the bladder contained about 4 ounces of thick, grayish, syrupy, opaque fluid. Careful examination failed to disclose a stone within the common duct. At this juncture I was strongly inclined to accept the teachings of many accredited authorities and remove the gall bladder, on the ground that it was structurally abnormal and that it might ultimately become a menace to the patient. Upon second thought I determined to adopt the more conservative policy and preserve the organ. This conclusion was based upon two considerations: First, I believed that free liver drainage would be of positive advantage as a temporary matter; second, because I was confronted by the fact that there had been at times entire obstruction in the common duct and I had no assurance that such obstruction might not occur later in the history of the case. The subsequent history of the case clearly

*Read before the California Academy of Medicine.

proves the wisdom of this precaution. The operation was completed in the usual way by draining through a large rubber tube held closely in the fundus of the gall bladder by a purse-string suture, the tube being attached to the skin. Main wound was then closed. At the end of 24 hours there was a profuse discharge of bile from the tube and the patient's condition was greatly improved. The drainage tube was removed on the 5th day, but the discharge of bile through the remaining sinus was profuse. The temperature, although lower than at time of operation, still persisted a little above the normal and for several weeks subsequently her temperature would rise in the afternoon to 101°. A few days after operation bile ceased to flow through the common duct and stools were absolutely clay-colored. On the 31st of May, about 7 weeks after the operation, the following record was made:

Condition remains unchanged, biliary sinus still discharging a large amount of bile, stools persistently clay-colored. This morning, under ether, I reopened the abdomen midway between the old cicatrix and the median line, making a large incision. A careful examination of the cyst and common ducts showed the absence of stone and there was no apparent cause of obstruction along the latter. The head of the pancreas was found greatly enlarged, very firm and resistent, suggesting the possibility of malignancy, or of what was more probable, a chronic pancreatitis. Feeling that there was a grave doubt as to the propriety of making an attempt to establish patency of the common duct by approaching the structure through the duodenum and the ampulla of Vater, a cholecyst-enterostomy was determined upon. To accomplish this I used a linen thread uniting the lateral surface of the gall bladder to the anterior surface of the duodenum after the plan of McGraw. The point of anastomosis was fortified by a row of Lembert sutures to insure against leakage. The operative wound was then closed, but the gall bladder sinus remained opened as formerly. Patient rallied quickly, but the result of the effort was entire futile. Three weeks later I dilated the sinus and reopened the anastomosis by means of a small knife. Still there was absence of bile pigment in the stools and the original sinus continued to discharge as previously. On July 4th I determined to close the sinus. This was done by carefully separating the fundus of the gall bladder and exposing a sufficiently large area to permit of suture and infolding. This was easily accomplished and within 2 or 3 days bile appeared in the stools for the first time in nearly three months. Patient's recovery was rapid and at the present time she is living a perfectly comfortable life. Stools are normal. For the past three months she has had no fever or suggestion of the old pain. Appetite is good, she has regained her weight and has resumed all her activities.

Cholecystectomy as a deliberately planned initial undertaking is applicable under the following circumstances: In extensive trauma of the viscus, where immediate suture is impossible. Second, where there is evidence of long standing impermeable stricture of the cystic duct. Third, in gangrene of the gall bladder. Fourth, in malignant disease of the gall bladder. Doubtless there are other conditions, such as a greatly contracted and shrunken gall bladder, due to long standing cholecystitis, but as a general proposition I have for a long time been impressed with the idea that there is a positive danger in the removal of this organ at the time of first operation, because of the fact that an overlooked stone in the common duct, or the associated common duct changes as the result of a cholangitis which preceded, and which may persist long after the removal of the gall bladder, may entail disaster to the patient.

Very recently I was called to see an elderly woman who had undergone a cholecystectomy 3 months previously. The operative wound healed kindly, but the patient's general condition remained even worse than before the operation. There had been frequent rigors, with rise of temperature, great prostration, clay-colored stools and gradual decadence. Patient's condition became almost desperate and the question of an attempt at re-establishing the patency of the common duct was seriously considered. Fortunately, about this time a stone of considerable size escaped from the common duct and was recovered in a stool. This was a happy solution of a very serious problem. Had the gall bladder been retained at the original operation, the subsequent progress of the patient would undoubtedly have been along safer and more rational lines.

In the July number of the *Annals of Surgery* for 1905 William J. Mayo describes a case in which, during a cholecystectomy, an effort was made to re-establish the patency of the common duct, which was found to be greatly contracted. This resulted in a permanent biliary fistula. The common duct was so hopelessly obliterated that it was impossible to re-establish its function as a channel of communication between the hepatic duct and the duodenum. By a very ingeniously planned and deftly executed operation Mayo finally succeeded in making an end to side anastomosis between the hepatic duct and a loop of duodenum. Although the patient survived in this instance it is perfectly fair to assume that such an undertaking in a considerable number of cases would be attended by failure so far as the anastomosis was concerned, and with a high mortality rate as an end result. Mayo's comment at the close of his article is as follows: "I would here remark that the original removal of the gall bladder was unfortunate as a cholecyst-enterostomy would have been far easier as a second operation. Since that time I have been more conservative about the removal of the gall bladder in connection with common duct surgery."

My own belief is that with the accumulation of evidence such as that presented by my own case surgeons will become more conservative as to their estimate of the value of cholecystectomy not only in demonstrated common duct interferences, but as well in a large number of cases, where there is a reasonable possibility that common duct obstruction may become a more or less remote manifestation.

I can conceive of no more discouraging situation than that of the surgeon who is confronted by a patient who has undergone a cholecystectomy, and who has later developed an impervious common duct. Under these circumstances one of two things will be inevitable: either the immediate re-establishment of a biliary fistula of the old cicatrix or its immediate environment, or rapid dissolution. While life might be prolonged by the former incident, the hope of a permanent cure is minimized to a marked degree if such a termination be not impossible. For this reason I am prepared to subscribe to the doctrine that in all cases where an immediate cholecystectomy is not absolutely imperative the gall bladder shall be retained for purposes of drainage until the permanent patency of the common duct is clearly demonstrated. If under these circumstances the biliary sinus persists and becomes intolerable to the patient it is a comparatively simple matter to remove it as a secondary procedure. On the other hand, if permanent closure of the common duct rendered the step necessary a secondary cholecystectomy is a rational and uniformly safe operation. With my experience in the foregoing case I shall in the future proceed along different lines to those herein recounted. It would clearly have been a better procedure at the time of the second operation to have made a side to side anastomosis between the gall bladder and duodenum, following scrupulously the technique which is widely in vogue in doing gastro-enterostomy by the Moynihan method, and at the same time closing the biliary sinus as was finally found to be necessary. This would have shortened the duration of the case by

something like 2 months and would have avoided the risks of repeated anesthesia, which I have come to weigh not lightly. It may be suggested that the side to side anastomosis could be avoided by separating the gall bladder and anastomosing the sinus opening with the duodenum. This would have been impracticable for 2 reasons:

First, because the peritoneal covering over the fundus of the gall bladder had lost its identity and the structure about the sinus orifice could not have been safely joined to the duodenum. Second, the gall bladder was so involved in adhesions that to have liberated it sufficiently to have brought the sinus orifice into apposition with the duodenum would have been practically impossible, at least it would have added a serious risk to the patient.

RECENT COMPLETE TEARS OF THE PERINEUM.*

By GEORGE B. SOMERS, M. D., San Francisco.

INJURIES of the perineum are of interest to every physician who engages in general practice. They are very common and occur in the hands of even the most skillful obstetricians. When we consider the enormous number of children that are born into the world and the disproportion between the size of the unborn and the size of the canal through which nature forces them to travel, one wonders that injuries are not more common and more severe. It is true that we find many practitioners who maintain that they have confinements by the thousands and never meet with an accident to the perineum, but we cannot help feeling that such happy individuals do not find these accidents because they do not look for them.

So wonderful is nature's reparative process, that even in very severe injuries, the parts are often restored to fair condition, without any assistance on the part of the physician. But there is one form of injury, which is always too much for nature alone to cope with and requires skilled interference in order to effect a cure. I refer to complete tear of the perineum. The complete tear of the sphincter of the anus is followed by such a retraction and separation of the injured parts that spontaneous cure is almost impossible.

It is hardly necessary to speak of the serious nature of this injury and its consequent importance both to patient and physician. When any lesser degree of injury occurs, we may trust to nature, or refuse to recognize it or perform any excuse for an operation and feel confident that no immediate bad results will be noticed by the patient: for it is a peculiarity of incomplete tears that the bad results are usually remote; that is to say they show themselves only after several months or perhaps several years.

When the injury is complete, however, the issue must be squarely met. Neither physician nor patient can be deceived as to the actual condition present. In the first place an injury is present which will not cure itself and which both at once and for all time until cured, will be accompanied by all the deplorable consequences of bowel incontinence. In the second place the physician knows that in order to effect a cure, he must prepare to carry out a careful, well-equipped surgical operation.

On top of this comes the undeniable fact that in a large number of cases, even where a careful operation has been carried out, it proves unsuccessful. Reed states that "union may be said to occur in less than 50% of even favorable cases," and that "the practitioner in justice alike to himself and his patient should, before attempting an immediate repair of these injuries, explain that the majority of such operations are failures." This is truly a sorry confession and to undertake an operation with such a confession on the lips is discouraging and conducive to anything but good and careful work.

As for deliberately postponing the operation until a secondary repair can be made, there is no excuse whatever. I do not see any good reason why the operation should not be sucessful in the great majority of cases, and if we can but get a union of the sphincter, let alone the rest of the perineum, the gain for the patient will be immense.

If the proportion of failures is in fact large, then it becomes our duty so to improve the technic that we may undertake the operation with confidence and with the assurance that the chances are largely in favor of success.

Complete tears of the perineum naturally fall into two distinct groups, the recent and the old. Recent tears are of interest principally to the general practitioner and the obstetrician, while the old more often fall into the hands of the gynecologist and surgeon. So marked is the difference between these two forms, in the conditions surrounding them, in their pathology, prognosis and treatment, that they require separate consideration. I propose to pay particular attention to recent injuries.

Causes. In a country of magnificent distances, like Nevada, where the majority of the profession spread their field of practice over several hundred square miles, it would seem that this accident would be peculiarly liable to happen; for many births must occur before the physician can arrive to take charge of the labor and protect the perineum. But as a matter of fact the proportion is not so great as in the cities where the physique of women is poorer and the dangers of meddlesome midwifery very much greater. When a woman is able to give birth without assistance, it usually bespeaks no complication. The majority of bad tears occur in complicated labors, where interference is necessary and instruments are used. Malpositions requiring versions; hemorrhage and eclampsia necessitating forced rapid delivery are the most frequent causes.

The accident therefore is most likely to occur under the very eyes of the attending physician and there is no excuse for overlooking it.

Prophylaxis. Regarding prevention, my own experience in obstetrics leads to the following conclusions: (1) The lateral position in confinements gives the very best control over the advancing head and enables the accoucheur best to protect the perineum. (2) That the shoulders do more harm than the head in passing over the perineum. In many cases the arms may be delivered immediately after the head by rotating them on the chest. This device relieves the perineum very greatly. (3) When forceps are used the delivery should be as slow and deliberate as circumstances will permit. The majority of instrumental deliveries are entirely too rapid. Ample time must be given in order that the tissues may stretch and adjust themselves while traction is being made.

Characteristics. In a fresh laceration the parts have a very characteristic appearance. The wound is rough and irregular, presenting numerous shreds along the torn edges. The raw surfaces are covered with clotted blood. The surrounding tissues are livid, swollen, edematous showing little tendency to contract. Just here we have clearly indicated the most urgent reason for attempting an immediate repair. Owing to the overstretching and semi-paralyzed condition of the tissues, the parts that belong together remain in contact for some little time before contracting and where they are united at once we stand a better chance of getting accurate union.

The outer portion of the wound, that is to say the portion extending through the skin from vagina to rectum, is usually single and in the median line. When the tear goes off to one side, it is more likely to miss the sphincter and make its way deep down beside the bowel. Within the vagina, the wound is often complicated by branching off in two directions, following along each lateral sulcus.

* Read before the Nevada State Medical Association, May, 1905.

Let us suppose that we are about to treat a complete tear of the perineum that has occurred in a patient living in some out of the way cabin. How shall we go about it? What are the weak points of the usual technic?

Faults in Technic. The first thing to be determined is where shall the operation be performed, on the bed or on a table. The bed is a very bad place on which to perform a surgical operation. The patient cannot be placed in good position, the light is usually bad, the assistants and anesthetizers occupy awkward positions and the part to be operated upon is too low for the physician to work in comfort. With all these objections I suppose more perineums are repaired on the bed than ever reach a table. Yet no home is so poor but that it affords a kitchen table. This may be made an ideal operating table by covering with clean sheets and a Kelly pad. With good light, with the patient in good position, with your instruments within convenient reach, and lastly but not least, with a comfortable seat, it is easy to do good work.

Regarding assistants; every man who practices in the country is accustomed to make use of unskilled persons. In a perineal operation the legs can be held to better advantage by even an unskilled person than by any of the various leg-holders that have been devised.

The next point is the use of irrigation. The favorite solution with most physicians is bichloride, largely I suppose on account of its convenience. But I consider that it is a very bad solution to play over a raw wound. Where it comes in contact with a fresh wound it forms a coagulum on the surface which does not leave it in good condition for immediate union. It is much better to use the principle of asepsis rather than antisepsis and use boiled water or normal salt solution.

Another detail is the free exposure of the wound. This is best done by drawing the edges widely apart by means of vulsella. These instruments should be held by the assistants. The wound cannot be properly united unless its full extent and nature are plainly seen.

Sutures. When the wound has been properly prepared by trimming and washing the suture material must be selected. Shall it be silk, silkworm-gut, silver wire or catgut?

Before considering this point, it must be remembered that the tissues to be sutured are swollen and as healing progresses will shrink considerably. Again owing to the lochial discharges and the proximity to bladder and rectum, the parts are peculiarly liable to infection. These considerations must determine our selection of the material most suitable for sutro.

Silk, I believe to be most unsuitable. It is true that it is easy to procure, easy to handle and easy to sterilize. But in my experience it has proved a failure, and I am sure that any one who uses silk habitually will confess to having many stitch-hole abscesses. No matter how carefully prepared, silk is, from its structure, easily contaminated and harbors infection within its meshes.

Silkworm gut is a hard, impenetrable substance and therefore in itself it cannot be infected. But it is stiff and unyielding and on this acount is unsuitable for a tissue that is destined to shrink. In such cases it will often be found hanging loose in the tissues or even holding the edges apart.

Silver wire gained its early reputation through its use in vaginal work in the hands of Marion Sims. It is a most excellent material and its virtues are too often overlooked. I am sure that much better results could be recorded in work about the perineal region, if it were used more frequently. It has the invaluable quality of being in itself an antiseptic material. As regards stiffness it has the same objections as silkworm gut, but is superior in that if found loose, it may be easily tightened by twisting the ends. As a retention suture it has no equal.

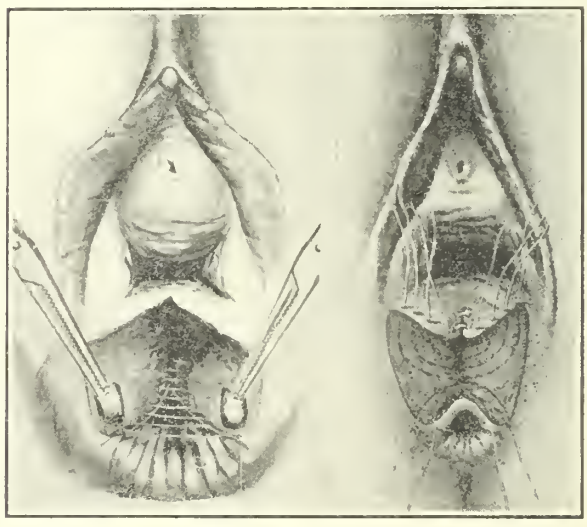
Catgut deserves special attention as a perineal suture. Its chief virtue lies in the fact that it may be buried in the tissues and therefore used as a running or continuous suture by which a wound may be effectually sealed. Its chief disadvantage is that it is difficult to sterilize and keep, but these difficulties have been overcome by the various manufacturers, who supply catgut in small, convenient, sealed packages which may be opened as needed.

On the principle that the suture should be selected to fit the requirements of the wound, I believe that for a fresh tear, catgut and silver wire form the best combination.

Interrupted or Continuous. Now, supposing that the wound has been properly prepared for coaptation, how shall the edges be brought together? We may choose either interrupted or continuous sutures. The majority of operators use the interrupted because it is the simplest and easiest to insert, but I believe that it is responsible for many failures. Interrupted sutures interrupt the circulation. If the tissues are filled with a mass of tied sutures, the blood supply will be seriously interfered with at each point where a suture is tied. The ideal suture should bring the surfaces together without force and without interference with the circulation, for the vitality of the tissues and their power of uniting quickly, depends upon an unrestricted blood supply. The continuous suture answers these requirements better than any other.

Technic. To go on then with the operation, the bowel tear must first be repaired. It is necessary to seal the edges effectually against the invasion of bowel contents. This cannot be done with an interrupted suture. The latter not only leaves avenues of infection between each stitch, but the projection of the stitches into the bowel invites infection by capillary attraction.

In order to seal this part of the wound, it should be brought together by a continuous, fine chromicized, catgut suture, starting at the upper angle and passing firmly through the tissues so as to bring the edges of the mucosa together without penetrating into the bowel.



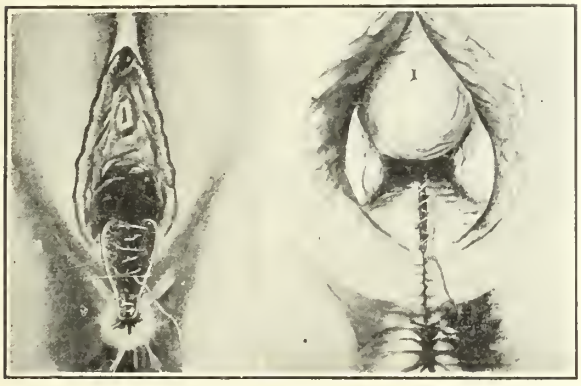
(Fig. I. Bowel closed by continuous suture. Ends of sphincter fished out.)
(Fig. II. Faulty technic. Ends of sphincter still buried.)

As soon as the bowel rent is closed, attention must be directed to the sphincter. The essential point of the whole operation is of course to unite the divided ends of this muscle. In the usual operation the raw surfaces in the vicinity of the divided ends

are simply pressed together without making any attempt to ensure muscle coming in contact with muscle.

I wish to call attention to the necessity of bringing the ends directly together, without the possible intervention of any other tissue, not trusting to a chance union but actually isolating the muscle and uniting it under the guidance of the eye.

Fishing. This may readily be done by fishing for the retracted ends with forceps. The muscle is enclosed within a sheath and each end may be caught and drawn out. When exposed it is easy enough to unite the ends with a couple of interrupted chromicized catgut sutures.



(Fig. III. Ends directly united.)
(Fig. IV. Sphincter reinforced by silver wire. Rest of wound closed by continuous suture.)

To reinforce these sutures, silver wire should be inserted through skin and muscle entering and emerging a little over a quarter of an inch from the median line.

The rest of the wound may be closed in any way that best suits the operator, but I believe better results will be obtained if continuous catgut is used. The precaution should be taken of inserting the sutures rather deeply so that a firm hold on the tissues may be obtained. In the after treatment it is not necessary to catheterize. Each time after urinating the parts should be douched off with liquor cresolis compositus solution. Within 24 hours the bowels should move. Saline cathartics are best in order to procure watery movements. One or two movements must be procured daily for the first two weeks, and it may be necessary to give Rochelle salts twice a day in order to be effective. The diet should be very light. The silver wire suture may be left in 3 weeks.

As for douches, none should be given unless there is some odor to the vaginal discharge. In that case one or two douches of liquor cresolis compositus may be given daily.

MERCURIAL INJECTIONS IN SYPHILIS.*

By HOWARD MORROW M. D., San Francisco.

IT IS generally admitted by clinicians that one large dose of mercury given hypodermatically has an action equal if not superior to pills of mercury given over a period of five or six days. The needle must be passed through the subcutaneous tissue into the muscle—the outer side of the gluteal region being the best location. If the needle and syringe are absolutely clean, and the skin sponged with alcohol, there is no danger of infection and large inflammatory areas are prevented by not giving injections at the same spot except after a lapse of a week or more. Whatever preparation is used, the first injection must be small on account of the possibility of the patient being very susceptible to hydrargyrism. After that the dose must be increased until the lesions begin to fade rapidly or until a reaction from the mercury occurs. The quantity of mercury in each preparation must be kept in mind as well as the reaction from the dose—carelessness in this regard explains why one patient is cured by using such-and-such a salt of mercury, while another derives but little benefit. One object of this paper is to bring out the fact that many preparations act well if properly given, there being little choice between many of the soluble salts.

The soluble preparations are given in water and the insoluble ones in oil—this is a very important point because with injections of oil there is always the possibility of embolism. Several fatal cases have been reported. Klotz reports twelve cases of embolism in his series of over two thousand injections. This is probably the most disagreeable incident in the use of the insoluble salts. Another objection is the accumulation of mercury which may take place after the injection of insoluble—oily preparations and large quantities may suddenly be absorbed into the circulation. Recently at the University of California clinic a patient with stubborn lues exemplified this possibility. He had received about fifty injections of bichloride, nearly one hundred of sozoiodolate and while under treatment he developed a rebellious glossitis. He was then given two calomel injections of one grain each, one week apart, and ten days after the last injections he felt sick and became severely salivated.

The only serious objection to the soluble salts is that they must be given more frequently on account of being rapidly absorbed into the circulation. Still it is seldom that it will be found necessary to give the injections oftener than twice a week, and occasionally once a week will be sufficient. For the past four years at the clinic injections have been used in nearly all severe cases. Several hundred injections of the bichloride, biniodide, sozoiodolate and benzoate have been given as well as many of grey oil and calomel. The latter have only been used in stubborn luetic conditions of the mouth. No disagreeable symptoms from soluble salts have been observed. Before classifying the advantages of the different methods, I'll briefly mention the hobbies of some of the European clinicians relating to mercurial injections:

In England the favorite treatment for many years has been tablets of hydrarg. cum creta. Jonathan Hutchinson and Radcliffe Crocker both use this method more than any other. Mercurial injections are very seldom used. At the clinics in Paris the green iodide of mercury in pill form is still a favorite remedy and is usually given in the form of intermittent medication as advised by Fournier. In the hospitals, syphilitic patients are mainly treated by means of injections, a great variety of preparations being used; but there seems to be a preference for the soluble salts, as being less dangerous, and as effective as the insoluble preparations.

In Italy injections and inunctions are almost exclusively used. The sublimate and calomel are the favorite salts.

In Germany and Austria the most popular way of treating syphilis is by inunctions with mercurial ointment and in many places mercury is only used when symptoms of syphilis are manifest. The injection treatment is also largely employed—a great number of preparations are used, each clinic having some favorite one. The salicylate, the sublimate and the grey oil are most generally used. Internal treatment by pills and mixtures is not looked on with favor.

At St. Petersburg, patients in hospitals are largely treated by means of inunctions and those attending clinics frequently receive injections of the insoluble salicylate.

Advantages of Injections Over Internal Medication. The action is rapid and the exact dose can be esti-

* Read before California Academy of Medicine November 28, 1905

mated. There is practically no danger of salivation or diarrhea and digestion is not disturbed.

Many lesions which resist internal medication will clear up under injections.

Advantages of Mercury by the Mouth Over Injections. The medicine can be given in pill form and this can be carried in one's pocket and taken without trouble. For routine treatment when no active lesions are present the results are apparently as good as by injections. There is less likelihood of losing the patient on account of the fear which some have of the pain following the injections.

The Disadvantages of Injections. At times they are quite painful.

The necessity of visiting the physician at times when it is not required by the condition of the patient.

The Advantages of Soluble Salts Over the Insoluble. Pain is not so severe or lasting.

They can be given in aqueous solutions.

The results are as good as from the insoluble salts.

The dose can be regulated better, as absorption is more rapid and there is no accumulation of the drug.

The Advantages of Insoluble Salts Over the Soluble. It is not necessary to give the injections so frequently.

Lesions of the mouth and nervous system clear up more rapidly.

The Disadvantages of Insoluble Preparations. The severe pains, which frequently last a long time, occasionally as long as a week.

The tenderness of the inflammatory lump which frequently remains after the injection.

They must be given in oil, hence the danger from embolism.

The dangers from salivation and other symptoms of mercurialism from accumulation of the salt at the points of injection.

Inunctions have the draw-back of being dirty, of sometimes causing cutaneous eruptions, and the dose cannot be regulated so carefully as by injections of soluble salts.

Nevertheless inunctions seem to be the best form of treatment for severe cases in children and in nervous women, and it is good treatment whenever mercury is indicated.

Intra Venous Injections are of service in those cases where it is necessary to obtain a rapid action, but in which it is necessary to avoid all pain. They are sometimes dangerous, and when the mercury happens to get outside the vein the pain is excruciating.

Conclusions. When it is necessary to get the patient rapidly under the influence of mercury, when eye or nerve symptoms are present, when lesions resist the usual treatment, and when pills cannot be taken, then injections should be used.

For treating patients who show no active lesions, mercury given by the mouth in pill form is most convenient and is thoroughly satisfactory. When injections are given it matters very little which of the soluble salts already mentioned are used. If given properly they act well. If it is necessary to give an insoluble salt, grey oil and the salicylate will be found less painful than calomel.

Dr. Pettenger's Name Misused.

To the Editor of the STATE JOURNAL: I know that you and the readers of the JOURNAL are acquainted with the methods used in distributing samples of pharmaceutical and laboratory preparations, so I will not dilate upon these methods, but simply wish to call attention to one specific case.

A short time ago a representative of the Merrell-Hall Company of Chicago called at my office in reference to Dr. Shiley's combined serums. As I was ready to leave my office I gave him about two minutes of my time; made him no promises whatever regarding the use of the samples which he had previously left for me.

After looking into the remedy I could see absolutely no theoretical grounds for its existence, and consequently did not care to use it.

It has come to me from several sources; in fact, I have received letters from several physicians in the state, asking me if I were using it and stating that the representative was using my name as being one of those who was putting it to test. I wish to state that this is absolutely untrue. I have not used this remedy, and until I can at least see some excuse for its existence, I shall not try it.

Yours very truly,

F. M. POTTENGER.

Los Angeles, Cal., January 10, 1906.

U. S. Pharmacopeial Business Affairs.

The Board of Trustees met at Pittsburg, December 2d. Members J. H. Beal, A. E. Ebert, J. P. Remington, S. A. D. Sheppard and H. M. Whelpley were present. Horatio C. Wood was absent. Secretary Murray Galt Motter has issued to the members the official minutes of the proceedings. A resume of the work of the Committee of Revision to be published in convenient form was discussed but no definite action taken by the trustees.

An edition of the Pharmacopeia in the Spanish language will, no doubt, be one result of the recent meeting. A committee consisting of Professor J. P. Remington, Chairman of the Committee of Revision, Charles E. Dohme, Chairman, Board of Trustees, and Dr. H. C. Wood, President U. S. P. Convention, was appointed to make the preliminary arrangements for an edition of 2000 copies. The discussion developed the fact that great interest is being taken in the proposition.

Dr. Walter Wyman, Surgeon General of the Marine Hospital and Public Health Service, was tendered a special vote of thanks for the publication of Bulletin No. 23 entitled, "Changes in the Pharmacopeia of the U. S. of A., Eighth Revision." Also, for the bulletin on Standardization of Diphtheria Antitoxins. A vote of thanks was also tendered Dr. Reid Hunt and Dr. Murray Galt Motter, of the Service, for their work on Bulletin No. 23.

With the view of bringing the Pharmacopeia to the direct attention of medical students, it was decided to present the professors of materia medica in the medical colleges with complimentary copies of the Pharmacopeia. The recipients of such copies will be requested to call the students' special attention to the purpose of the Pharmacopeia and the nature of official remedies.

The extent of additional honoraria to members of the committee of revision was considered at length, but action postponed until the next meeting of the board.

Several applications from publishers who desire to use portions of the text of the U. S. P. were discussed and the rate of compensation decided upon.

The board adjourned to meet at the new Willard Hotel, Washington, D. C., January 20, 1906.

The Pittsburg College of Pharmacy tendered the Board of Trustees an informal dinner.

HENRY M. WHELPLEY, Secretary,
U. S. Pharmacopeial Convention.

GEORGE CHISMORE, M. D.

George Chismore, M. D., died at his home in San Francisco on the 11th day of January, 1906. Doctor Chismore was born in Litchfield, New York, on the 30th day of January, 1840, and he lacked but a few days of being 66 years of age. In the volume of the Transactions of the Medical Society of the State of California for the year 1900 is a sketch of his life, he being then the president of the society, and it is hardly necessary to repeat here the story, but the varied character of his experiences is to be noted, for he was on a New Bedford whaler, was for a short time a miner, studied and practiced dentistry, and while doing the latter, studied medicine, and later at-

Yours Truly
Geo. Chismore

tended medical lectures. Before he graduated, however, he served in official medical capacities for the Western Union Telegraph Company and the United States Army, and leaving the latter, took his degree in medicine from the Medical Department of the University of the Pacific in 1873.

Doctor Chismore has related that as a boy he voluntarily nursed an old man who lived in a little cottage near his home until the sick man died, and has said that his interest in medicine began then. The taking of his degree, which he did not do until after he had been officially practicing for seven or eight years, was important as a necessary step to legal practicing, but was in other ways a minor matter. He was eminently one of the men who did not learn all his medicine in a medical school; he learned many facts there, beyond doubt, but they were parts of an armamentarium, the major portions of which were an intense sympathy, a great power of observation, and a rapidity of reasoning and accuracy of judgment which made many of his diagnoses seem almost matters of intuition. Nor did this faculty stop here. His therapeutic measures were selected by the same processes, and yet with the most painstaking care, for he believed and preached that the duty of the physician was to make his patients well, and that the profit to the sick man was little or naught unless this goal was attained, in part at least. This was the key-note of his professional work, his endeavor to make the sick better or well. It will not be believed by those who knew him, it must not be thought by those who did not, that the scientific side of medicine was slighted. His work, looked at from the strictest scientific view point, will stand the closest scrutiny, and this is especially true of his large amount of original work, and is practically true of his errors.

The original work he did was in the field of genito-urinary surgery, to which field he in great measure restricted himself after eleven years of general practice in San Francisco. His modifications of lithola-paxy, actually reversing many of the processes of the original Bigelow operation, as in forcing the last elusive fragment to seek the lithotrite instead of seeking for it with the instrument, make the operation practically a new one, and it is done with instruments of his own design, on original lines and of the strictest simplicity. Leading and teaching the profession in this, he has not hesitated in other points, to oppose with equal earnestness the prevailing opinions when his judgment or experiences failed to approve them. He objected strongly to the common practice of washing out the bladder, to the catheterization of the ureters, and the use of strong injections in the deep urethra. He objected, too, in no uncertain terms, and backed his objection by the citation of personal cases, to surgical intervention in cases of tuberculosis of the genito-urinary tract, and it must be considered that this objection was positive, not negative work; that the expectant treatment advocated had a definite object, which was to be attained by certain lines of action.

Apart from his professional work his life was a complex one, for it touched the lives of many and diverse people in many and varying ways, and yet, after all is said, always in one way. In the Bohemian Club, of which he was twice president, in his social life outside the club, in his charities, which were more than even his intimate friends probably knew, in his simply going about the city's streets, he always attracted a definite love from his fellow men; wholly distinct from mere gratitude, not necessarily based on intimate acquaintance, often coming from those who did not agree with him, but offered by all who knew him, because there was something in him which called it forth. It was a response to the manly sweetness of a character which we will certainly wait long to see duplicated, but, which having known, we can never forget; nor ever wholly lose the effect of its influence.

UNDRAWN POULTRY AND FISH.*

By FRANKLIN G. FAY, M. D., Sacramento.

THE principal reason for introducing this subject for your consideration is the fact that toxicosis, resulting from partially decomposed foods, is so frequently encountered throughout the United States by the medical profession.

This fact being accepted, it seems proper to endeavor to find the causes and remedy the evil.

One cause may possibly be found in the manner in which undrawn poultry and fish are frequently placed on the market.

It is the general custom in the United States to dress the fowls by removing the feathers only, the neck being dislocated and the blood allowed to congeal in the loose tissues surrounding the neck and head, although some bleed the fowl through the mouth, and thus secure drainage without external wounds. They are hung up by the legs, the neck broken, or bled in the way mentioned, and then "dry picked," by which is meant that the feathers are all plucked before death has produced contraction of the follicles surrounding the insertion of the feathers, and thus rendering this operation difficult. The large packers precede the killing by starving the fowls for 24 hours before slaughtering, in order to allow the contents of the alimentary tract to pass, thus recognizing the fact that the presence of undigested food is undesirable, but the small dealers frequently take no such precaution, and on the contrary feed the birds liberally in order to increase plumpness, appearance and weight—attractive marketing being the important commercial factor.

The reports of the Canadian Commissioners of Agriculture show that the requirements of the English market demand that the intestines be removed, but opinions differ in the United States regarding this. The only authoritative statement I have been able to find is that of the conclusions from recent American experiments published 1901, Bulletin No. 144 under supervision of the Department of Agriculture:

> Under precisely the same conditions of temperature and humidity, drawn fowls will keep from twenty to thirty days longer than those not drawn. The presence of undigested food and of excrementitious substances in animals which have been killed most certainly favors the tainting of the flesh and general decomposition. The viscera are the first parts to show putrescence, and allowing these to remain within the body cannot do otherwise than favor infection of the flesh with bacteria and ptomaines, even if osmosis does not actually carry putrid juices to contiguous tissues. Hunters know the value of drawing birds as soon as possible after they have been shot, in order to keep them fresh and sweet and to prevent their having a strong intestinal flavor. That the opening of the body of an animal and exposing the internal surface to the air may have some influence of itself in hastening putrefaction is admitted, but when the process of drawing is properly conducted this secondary objection to its immediate performance may be entirely set aside. Absolute cleanliness should be maintained throughout the operation, and if the entrails are torn and their contents allowed to come in contact with the flesh of the animal, its interior should be at once washed out with clean cold water, and afterwards with a solution of common salt and the carcass hung up until thoroughly dry.

In an address entitled "Toxicosis Resulting from Modern Cold Storage Methods," by M. Cavana, M. D., Oneida, N. Y., and read at the 14th Annual Meeting of the N. Y. and New England Association of Railway Surgeons, held at the Academy of Medicine, N. Y. City, Nov. 17-18, 1904, there were many facts presented, in part as follows:

> It is a well established truth that decomposition of organic matter begins the instant that such matter is deprived of life, and that all varieties of decomposing matter contain, to a greater or less degree, chemical and bacterial poison, and that the more advanced the stages of decomposition the more active the qualities of such poisons. In cold atmospheres the process of decomposition is of course much slower than in ordinary temperatures, but the process is not fully suspended even by thorough freezing. The great multitudes of sufferers from digestive disorders are victims of toxicosis, or ptomaine poison. Stomach disturbance after eating, colic, nausea, headache, cholera-morbus, and most of the attacks of diarrhea and dysentery are among the conditions traceable to this cause.
>
> In certain experiences of the writer the toxicosis was of such poisonous quality as to dangerously paralyze the nerve governing the action of the digestive tract, and in each fatal case death was preceded by heart paralysis.

Several examples of fatal poisoning from food ptomaines are recorded in detail to prove the seriousness of the present food situation, and the urgent need for an early remedy.

Poultry is bought and sold by weight, and generally commands a price from 12 cents per pound upwards (now quoted at 30 cents per pound in California). Poultry raisers as a rule precede the slaughtering of their marketable stock by a liberal cereal feeding, which fact accounts for the full crops generally found by our domestics while preparing their poultry for cooking. The manifest object of this feeding is to increase the weight of the stock, and the corn or other grain at two cents a pound, thus fed before slaughtering proves a six hundred per cent investment to the raiser of the stock.

After slaughter the poultry carcasses are denuded of their feathers and shipped to the wholesale dealers, without further dressing. The head and feet, as well as the full crop of partially digested grain, and the intestinal tract with its store of filthy and poisonous excrementitious matter, all combine to make valuable weight, and are therefore kept intact. Most of the modern wholesalers are proprietors of cold storage plants, and their stocks are the sources of supply for a great majority of the retail marketmen of our cities.

Imagine the probabilities connected with the Thanksgiving turkey and the spring chicken (which is quoted upon the menu of our high class hotels and restaurants every day of the year), their previous storing in a cold, but unfrozen state for months, or even years; their craws stuffed with partially digested food in a state of continuous fermentation during this long period; their lung tissues and other delicate internal structures broken down by partial or complete decomposition; their digestive tracts filled with excrementitious matter in a state of solubility; their extensive anatomical arrangement for absorption through the numerous vessels and ducts, which extend from the intestinal lining to various portions of the body of the fowl, rendering the absorption of the unclean and poisonous intestinal tract probable rather than possible; and the final crowning act of the wholesaler, that of saturating the partially mummified specimen in fresh water before marketing, thus rendering the distribution of the ptomaines throughout the unclean conglomeration as thorough as could be accomplished by the most studied means.

The reports of our State Board of Health show eight thousand deaths from diarrhea in a single year. Without question a very large majority of those fatal cases were victims of food toxicosis. The laws of our land very properly provide for the most despotic quarantine of the Asiatic Cholera, the Bubonic plague and smallpox, but as yet not a hand has been raised in the interest of a movement against a situation which claims more victims each year than the combined contagious diseases mentioned.

The writer is convinced that the hour for radical action in this all important field is long since past due, and that the medical profession of our proud nation is justly chargeable with inexcusable indifference, if not negligence, of its duty to humanity, by its delayed action in the matter.

Will the members of the New York and New England Association of Railway Surgeons each put forth his best efforts in the securing of such legislation in the several States comprising this organization, as will compel, by law, as thorough cleaning and preparation of poultry for storage and the market as is now practiced in the care of beef, pork and mutton before storing, and such periodical inspection of storage plants as will fully and completely stay the withering hand of exogenic toxicosis, and thus safeguard our people from the untimely dissolution which must follow the continued indifference toward this situation?

Many of the facts mentioned in regard to poultry are also true of the marketing of fish in California. The fish are frequently stored by wholesalers without any attempt at cleaning or dressing until ready for the retailer, when they are then drawn.

Perhaps fresh-water fish are more generally stored undrawn or round, as it is termed by the trade, than salt-water fish. If this be true the obvious reason would be that the contents of the intestines of salt-water fish are more apt to be composed of carrion or decayed animal matter than the fresh-water fish.

Did you ever know of catfish being marketed or stored in any other manner than with the head, intestines and even skin removed? Now why is this

* Read at the meeting of the California Public Health Association, San Francisco, October 28, 1905.

precaution used in the case of catfish and not with other kinds of fish. The dealers know that a catfish will spoil and the meat become so tainted by reason of the absorption of the contents of the intestines, as to be unsalable. Therefore they are usually killed (not allowed to die from suffocation as is often true with other kinds of fish) and completely cleaned before any contamination has occurred. What is true in regard to catfish, is probably true in regard to all other fish, perhaps in not so great a degree, but sufficient to show the possible danger, and make necessary some laws regulating this unwholesome practice. A great deal of Eastern poultry has been condemned in California by reason of its having been allowed to thaw during transit and refrozen on arrival. The removal from cold storage of such products should be regulated by a law compelling the immediate use by the consumers and not be permitted to be placed for sale in the hands of retailers who are not prepared to keep them in their previously frozen state. These retailers keep frozen poultry exposed for sale until soft, when if not sold they return them to the cold storage men for refreezing. This is particularly dangerous and Chief Chemist Wylie states that "it is highly important that when cold storage meats or products in general are to be consumed that they should not be removed from cold storage until they are ready for consumption. That there is the utmost danger of contamination and that for business as well as sanitary reasons there should be such an adjustment of withdrawals from cold storage as would immediately meet the demands for consumption and no more and that cold storage products should not be exposed to ordinary temperatures until the customer is ready to take them at once and use them."

He also states in a personal letter that this subject is now under consideration by the Bureau of Chemistry and that they hope soon to have some definite knowledge as the result of personal investigation. In the meantime the boards of health would be justified in condemning any poultry which suffered any deterioration in transit.

Resolutions condemning the use for human food of fish and poultry from which the viscera were not removed at the time of slaughter were passed unanimously by the National Conference of State and Provincial Boards of Health, Washington, D. C., the California State Board of Health and the Sacramento City Board of Health.

There is now before the Sacramento Board of Trustees an ordinance in accordance with the above resolutions, which we hope to have enacted. This legislation, as all other similar legislation in the past, is meeting with strenuous opposition on the part of the dealers, led by the large packers and cold storage men. If their immense interest in this matter is really in behalf of the public we should have no difficulty in making a satisfactory adjustment, but as yet I have found no producer and no consumer outside the trade who is opposed to legislation. The combined interests of capital and the middle men have succeeded in delaying legislation heretofore, but if the public be educated sufficiently as to the true merit in this movement, it must come through the medical profession—for the reason that the middle men are shrewd enough to look out for their own interests and have deluded the consumers in the belief that undrawn poultry and fish is not only equal, but in fact superior to that which is drawn.

Prophylactic surgery may be the surgery of the future; serum therapy and other therapy may narrow the operative field; but whatever course surgery may take, its direction will be one of advance, for it is traditional with and inherent in our art and our workers to press steadily forward to the end that the lives of men may be made longer and happier. This is our heritage.—Dr. C. A. Powers, Address, A. M. A.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

The regular meeting of the society was held on Thursday, December 21, 1905, in the rooms of the San Francisco Polyclinic, the president, Dr. K. Pischel, in the chair. The program follows:

Dr. Cullen F. Welty read a paper on "The Indication of Surgical Interference in Laryngeal Tuberculosis." (Published later.)

Dr. Houston, discussing paper read by Dr. Welty: I do not recall ever having seen in San Francisco a case of primary tuberculosis of the larynx. My operative experience has been limited, and when employing it I have found my technic too insufficient to secure a perfect result. My conclusion would be that there are practically no cases of primary laryngeal tuberculosis here, and that it would be useless to operate in the presence of constant reinfection. During the past week I have had two cases illustrating this. One was a man with an ulceration of the right cord, and though no pulmonary lesion was apparent at the time, yet I am positive, from the enormous amount of sputum, teeming with the tuberculosis bacilli, that we shall find a pulmonary lesion with more careful search. The other patient had an extensive ulcer involving the right ventricular band and the arytenoid process. No pulmonary lesion had been found, but a radiograph showed enlarged bronchial glands, pointing probably to a pulmonary infection. I think that the cases suitable for operation are very few.

Dr. Merritt: In Vienna I saw many cases of laryngeal tuberculosis without apparent constitutional symptoms. They are treated there as a local affection.

In San Francisco we have few cases of primary tuberculosis of the throat. In the constitutional cases here the throat becomes affected very late in the disease, and then the patient is so far gone that by treating the throat he is afforded but little relief.

Dr. R. D. Cohn: I am somewhat conservative about operating in laryngeal tuberculosis, adhering to the principles laid down by Hajek. Theoretically Hajek divides the disease into three stages. In the first, with the exception of a circumscript ulceration or infiltration, the larynx is healthy. In this stage, the only one in which we can hope for a permanent cure, the treatment consists in curettage for an infiltration, and cauterization with lactic acid in case an ulceration is present. In the second stage the larynx presents extensive infiltrations or ulcerations involving the greater part of the laryngeal ring. Here we can not hope for a complete elimination of the morbid tissue. Here the antiseptic treatment comes to the front to prevent secondary infections. In the final stage the treatment is purely symptomatic. In impending suffocation tracheotomy must, of course, be performed.

Dr. Philip: I have never operated on patients with this condition, because when they come to me it is evident that it is a secondary infection. I have had in my private practice ten cases. All patients but one died. That man had one lung entirely gone and part of the other. The laryngeal symptoms disappeared and the patient lived with the remaining portion of the other lung.

Dr. Welty, closing discussion: In regard to primary tuberculosis of the larynx, there is no doubt that such a condition does exist, as there are various authenticated cases on record, and I have seen a few myself.

The differential diagnosis in this particular form of tuberculosis is exceedingly difficult because the lesion consists in some cases of slight degrees of thickenings. The same condition may come from various affections, and in all cases the process of elimination is very difficult. It is quite another picture when the disease has progressed, or there is

well-defined tuberculosis elsewhere. Many of the so-called cases of primary affections that have been operated, diagnosis verified by the microscopical findings, develop tuberculosis of the lungs in the course of a few years. No doubt this lung condition was present at the time of operation and they can not be considered as belonging to this class.

The more you study this classification I have made of tuberculosis of the larynx, the easier it is to arrive at something definite.

We do find cases of tuberculosis of the larynx without laryngeal symptoms, and it is a noteworthy fact that some of these patients will begin to have trouble as soon as treatment is begun, so it is recommended that you let them alone. The active laryngeal cases are operated upon because of their distressing symptoms. Patients can be made much more comfortable, and we should not hesitate to relieve them. One of the cases that I reported illustrates this very beautifully.

When the whole of the larynx is involved in the tubercular process it will of necessity fall into the group where we operate for the relief of the laryngeal symptoms, and probably the preliminary operation would be a tracheotomy. You certainly will not attempt to operate with any chance of effecting a cure.

I have seen tubercular ulcerations of the true chords operated on very successfully by the use of the cautery. In summing up the situation we find that primary tuberculosis is so rare or so difficult of diagnosis that very few cases are operated.

Second, that cases without laryngeal symptoms should be left alone.

Third, that the active cases are operated simply for the relief of distressing symptoms.

Fourth, that the passive cases are the ones of natural selection for operation.

The president suggested that the society should discuss the advisability of total extirpation of the tonsils, saying: "Lately, at different meetings, the question of tonsil operations was discussed and many advocate the excision of every particle of tonsil. I, myself, I must confess, have not quite made up my mind about it. What is a normal tonsil? When should we remove them and how much of them?"

Dr. Houston said that for the past year he had given up the use of the guillotine, the Myle's punch, etc., and limited himself to total extirpation of the gland with the cold wire snare. He finds this method efficient in all cases. He operates under chloroform anesthesia, with the patient in the reclining position. The tongue is held by an assistant. The adhesions to the pillars are torn loose with a long blunt hook and scissors, then the tonsil is drawn to the median line with a Knight's nasal forceps, and with the Farlow snare, cut through, taking about four minutes for this latter procedure. The hemorrhage is usually brisk at the time. The doctor reported three cases of post operative hemorrhages—one on the fourth, one on the seventh and one on the eighth day.

Dr. Cohn said that he could not thoroughly agree with Dr. Houston, and thought that the radical enucleation should be employed only in those cases in which the tonsils cannot be removed by any of the tonsillotomes, tonsil punches, etc. He considers that in the ordinary cases of hypertrophy only the portion projecting above the pillars need be removed, as the remaining stump shrinks, leaving a smooth cryptless surface. Continuing he said that the removal usually requires one or two minutes, while the enucleation, as described by Dr. Houston, requires three-quarters of an hour, confinement in bed for a number of days, is frequently attended with severe hemorrhage, leaves the throat in a very much inflamed state and serves no purpose not answered by the simple removal.

Dr. Merritt said that after operation in many of these cases there is a bit sticking out which cannot be removed with impunity for fear of taking too much. In hard and fibrous tonsils he was afraid of after hemorrhage.

Dr. Philip does not send his tonsil patients to the hospital. He operates on the patient, where the crypts are filled with material, by removal piece by piece, the patient not losing any time from his work.

Dr. Welty divides the tonsil operations into two classes dependent upon the pathological condition. In the first class the tonsil is hypertrophied without involvement of the crypts and is not adherent to the pillars of the fauces. These tonsils can be thoroughly removed by the tonsillotome. The second class included those cases adherent to the pillars, and we operate to eliminate the crypts. Dr. Welty uses long-handled curved scissors, tonsilar forceps, blunt and sharp dissectors and a large strabismus hook.

W. SCOTT FRANKLIN, Secretary.

Gonorrhea and Enlarged Prostate.

The statements of patients are, of course, notoriously misleading; and yet it is generally conceded that fully 75 or 80 per cent of adult males have gonorrhea in early life, and that fully 60 per cent of these have posterior urethritis. Inasmuch as less than 20 per cent of those who pass their fifty-fifth year have prostatic hypertrophy, one certainly cannot infer any very direct connection between the two. To assume that the early gonorrhea produces the hypertrophic change of later life would be to assume something that proves too much. There are not enough hypertrophied prostates to go around.—Keyes, in *Journal A. M. A.*

Insanity and Tuberculosis.

The study of insanity in its relation to tuberculosis is exciting the attention of the thoughtful alienists of all lands. While it is not directly related to the supreme and higher question in forensic medicine, of how far and to what extent preventive legislation can be relied upon to arrest and avert the ravages of this dreadful scourge of the human race, it is forced into public recognition, because the insane being nearly all dependent, are the wards of the state; and the approaching congress at St. Louis is regarded by the management as a suitable occasion to call upon the leading alienists and neurologists of the world for a full discussion of this subject, with a view and to the end that the contributions can all be presented before one of the sections of the congress without at all interfering in its greater work on preventive legislation, and the various themes which are now under consideration by the committee having charge of the formation of the programme.—Clark Bell, Esq.

XVth International Congress of Medicine—(Lisbon, 19-26 April, 1906).

The 5th number of the *Journal of the XVth International Congress of Medicine* is published. It is dated from the 20th of February and contains interesting news. The number of the reports that are assured in the different sections gets up 205 till now, and they are signed by the highest names of the medical sciences. The programme of the Lectures is also very advanced: Sir Patrick Manson, prof. Brissaud, drs. José Esquerdo and P. Aaser, and prof. Azevedo Sodré are inscribed already and the Committee of the Congress expects the inscription of other scientists that are invited. At last, the organisation of the national Committees is nearly complete in the several countries. (*Sic.*)

COUNTY SOCIETIES.

Alameda County Society.

The Alameda County Society held its regular monthly meeting on November 21st. There was a large attendance of members who listened with the greatest interest to a discussion by Dr. Martin H. Fischer of some of the recent work on the physiology of digestion, dealing chiefly with the experimental work of Powlow. Dr. Fischer described the operation for the formation of a Powlow pouch, in which a portion of the stomach is so segregated from the main cavity as to permit a study of its secretions, which remain uncontaminated by food during gastric digestion. He also explained the method of sham feeding, in which the animal is allowed to eat, but the food escapes through an opening in the neck instead of passing into the stomach. By a combination of these methods, it has been found that the gastric juice varies in amount and in character depending upon the sort of food eaten, and also varies at different stages of digestion; that psychic influences stimulate the stomach to secrete about fifty per cent of the gastric juice, as by the mere sight, smell, or taste of food; and that the stimuli reach the stomach by way of the vagus nerves, no secretion occurring if the vagi be cut. Articles of diet having no food value themselves may highly stimulate secretion, as in the case of meat extracts, soups, bitters, etc., so these have a certain sphere of usefulness in the meal. It is important also that food should be palatable and agreeable to the eye. Psychic influences, as grief, anger, etc., may also inhibit secretion. Milk, meat, and bread stuffs were found to require increasing amounts of gastric juice for their digestion, the ratio being about 11 to 16 to 44. Milk is thus the most easily digested of all foods.

The pancreatic secretions were also studied by Powlow, the juice being collected by cutting the duct and allowing the fluid to escape into a receptacle. He found a slight constant secretion, greatly increased on the entrance of food into the stomach. The secretion varied greatly in amount with different sorts of food, as did also the different ferments contained in it. The nervous exciting and inhibiting influences were like those referred to in connection with the stomach. It would seem that the gland cells are stimulated to secretion by the presence of the so-called pancreatic secretion. This is a substance formed in the duodenal mucosa when the acid stomach contents escape through the pylorous, and it is carried to the pancreas by way of the blood stream, and also to the liver, where it has to do with stimulating the flow of bile.

The discussion of the paper chiefly took the form of questions, after which all present proceeded to the practical application of the subject, the committee on program having thoughtfully provided a supply of sandwiches and beer upon which the principles enunciated by the speaker could be immediately tested.

T. C. McCLEAVE.

Orange County.

The Orange County Medical Association met in regular session Tuesday evening, January 2d. The attendance was good and the interest manifested was more than usual.

The Board of Censors submitted a report requesting the members who are doing contract lodge practice to discontinue doing so. This, it was assured will be willingly complied with, as all the members appear willing to conform to the by-laws of the Society.

Our library was enriched by a copy of Haines' and Peterson's work on "Nervous and Mental Diseases," being a holiday remembrance from Dr. R. A. Cushman of Talmage.

Dr. J. L. Dryer then read the paper of the evening, the subject being, "The Home Care and Treatment of Consumption." This was one of the most thorough papers on the subject ever presented to the Society. Dr. Dryer showed in his usual direct way that he was fully conversant with his subject. He advocates constant supervision of the physician "over the home life of the patient," or rather, "tent life" for that is the life he recommends. He is also a strong advocate of the serum treatment, but sunlight, fresh air, perfect hygiene, and nutritious feeding are his principal dependence. The discussion lasted almost three hours and it was near midnight when the Society adjourned.

H. S. GORDON, Secretary.

San Bernardino County.

The San Bernardino County Medical Society met for its annual session with the president, Dr. Hoell Tyler of Redlands in the chair. Dr. J. M. Hurley, secretary.

A good attendance of the members of the Society was present, together with a number of leading physicians from Los Angeles, Riverside, Pomona, and Claremont; making a total of sixty in attendance.

The Medical Director of the Arrowhead Hot Springs, Dr. G. W. Tape, gave a terse and acceptable address of welcome, which was responded to on behalf of the Society by Dr. Hoell Tyler in a few well-chosen words.

Minutes of the last meeting having been read and approved, the Board of Censors reported favorably upon the application for membership of Dr. S. Y. Wynne of Redlands, and Dr. Geo. K. Abbott of Loma Linda, both of whom were unanimously elected.

The annual report of the year was then read, and showed that the past year had been the most prosperous one of the Society, its membership having increased from thirteen at the beginning of the year to forty-four at its close, in good standing, and with six delinquents. All bills were paid, and a surplus in the treasury. A vote of thanks was tendered the secretary for his energetic administration.

A nominating committee consisting of Drs. Payton and Gibbs was appointed by the chair, who reported the following list of candidates: For president, Dr Thos. M. Blythe of Redlands; for first vice-president, Dr. Jos. A. Champion of Colton; for second vice-president, Dr. Chas. E. Ide of Redlands; for secretary, Dr. D. C. Strong of San Bernardino; for treasurer, Dr. Jno. H. Evans of Highlands.

The entire list was ratified by the Association, and duly elected officers for the ensuing year. The Auditing Committee reported favorably upon all outstanding bills, and they were ordered paid.

The first paper was read by Dr. Frank W. Thomas of Claremont, upon the "Importance of a Proper Dietary in the Treatment of Disease." He took the ground that a careful and intelligent study of dietetics was the key-note of the medicine of the future. Drugs while both useful and necessary in emergencies, could not produce the permanent alterations of nutrition which could be obtained by an intelligent selection of foods. That in nearly all of our chronic diseases such as gout, rheumatism, nephritis, and diabetes, an intelligent regulation of the diet and habits of the patient was far the most potent means of arresting the progress of the disease.

He referred in high terms of appreciation to the admirable paper of Dr. Frank Billings before the Portland meeting of the American Medical Association, and said that this and the interesting discussion which followed it, were typical of the high rank which diet was coming to assume in the mind of the profession.

He referred to the brilliant researches of Powlow upon the different strengths of digestive juices called out by different classes of food, as illustrations both of the exquisite adjustments of the alimentary canal to its work, and also of the changes which can be produced by an intelligent selection of different classes of foodstuffs.

The discussion was opened by Dr. Woods Hutchinson of the Arrowhead, who cordially endorsed the advanced and progressive positions taken in the paper. In his opinion a new era was opening up in this most important realm, and some of the old landmarks were going down to oblivion. Among them was the old three-fold classification of foods of Liebig and Voit, into the flesh-formers or proteids, the fat-formers and the heat producers. It was important to recognize that any class of food can serve any of these functions, and that all food taken into the body was broken down into its simplest molecules, and built up again into the tissues, giving out energy in the process.

Secondly, it was doubtful whether the food elements which can be built up into body tissue pass through the form of peptone. Certainly a considerable percentage of the peptones formed in the alimentary canal are on their way to the formation of creatin, creatinin, and finally other waste products. Therefore, the administration of pre-digested foods, peptones, and peptonoids, is of exceedingly doubtful value, nor was the giving of pepsin itself of much greater utility, inasmuch as all gastric analyses show abundance of this ferment present in all cases where the acidity was anywhere near normal. The researches of Powlow have shown as instincts told us long ago, that an attractive taste upon the part of food was absolutely necessary to stimulate the flow of active and effective gastric juice. Food that did not taste nice was just as definitely deficient a food as that which is defective in nutritive value.

Dr. Geo. K. Abbott expressed his appreciation of Dr. Thomas' paper, and commented upon the delicacy and accuracy of the modern tests of digestive power, and the importance of finding out whether lactose was present in the gastric juice before putting the patient on a milk diet.

Dr. Geo. L. Cole, of Los Angeles, said that while he thoroughly agreed with Dr. Thomas as to the great importance of dietetics, he had no sympathy with the therapeutic nihilism which decried all use of drugs. The man who had no confidence in drugs should resign from the profession. He agreed with Dr. Hutchinson that the patient should be encouraged to take a wide variety of foods, and that Nature knew how to take care of an excess better than she did a deficiency. He believed that pepsin and other digestives were sometimes useful in assisting patients who either could not, or imagined they could not digest certain foods. Contrary to popular, even the prevalent professional opinion, he believed with Dr. Hutchinson that most of our patients were under fed rather than over fed.

Dr. F. C. E. Mattison of Pasadena was then called upon to tell what he took for his 225 lbs. He blushingly declined to reveal the secret of his physical prosperity, but stated that the more he studied the diet of his patients the less frequently he found the necessity of giving medicine in the chronic disturbances of nutrition: that he believed in going into considerable detail with his patient as to what, and how much they were eating, making them give him as nearly as possible a complete list of the articles they had eaten during the last six or eight meals, and that he frequently found in this the secret of at least part of their condition. He agreed with Dr. Cole and Dr. Hutchinson that more of our patients were under fed than over fed, especially among women and children, and that many who had attempted to regulate their diet had done so at the expense of some of the elements of which they were most in need, particularly in the line of meats and fats.

Dr. Norman Bridge of Los Angeles, sounded a note of warning against the too strictly regulated diet. In diabetes for instance, the tissues were in a state of intense carbo-hydrate hunger and their temporary deprivation of carbo-hydrate might re-educate them to the conbustion of sugars. An absolute starch-free diet was practicably impossible to obtain, and when approximately reached would ultimately injure the general nutrition if long persisted in.

He agreed with previous speakers that a wide range of foodstuffs was absolutely necessary to health, and that patients should be encouraged to increase their food-range rather than to diminish it. He agreed with Dr. Cole and Dr. Hutchinson that the majority of our patients were under fed rather than over fed, citing the well-known fact, that all consumptives were in this condition. That the senses of taste and smell were necessary to aid digestion, and produce a flow of Powlow appetite juice, and attractive cooking was of great importance in dietetics. Our ideas of digestibility of a food were altogether too exclusively based on the length of time it took to leave the stomach, forgetting that the *real* digestion was in the small intestine, and that so long as the stomach can empty itself in a reasonable length of time, and pass it on to the small intestine, a patient's nutrition can be well kept up for an indefinite period.

Dr. Jno. Haynes of Los Angeles, took issue with Dr. Hutchinson and Dr. Bridge as to the prevalence of over feeding. In his experience a large majority of our patients, particularly of successful business men over the age of forty eat too much, and a great deal too much, and suffer severely in consequence. He believed that the mere thought of savory food was sufficient sometimes to start a flow of gastric juice, and laughingly suggested, that had it not savored too much of Christian Science it might be well to instruct our patients to think of fried oysters and quail on toast regularly one-half hour or so before each meal.

Dr. Lemoyne Wills of Los Angeles, believed that we should encourage our patients to depend less upon the artificial flavors of the cook, and to relish their food in its natural state. That the use of milk, raw eggs, nuts, fresh vegetables, form a valuable stimulus to the jaded appetite, and call into play both the muscles of mastication, and the digestive secretions of the stomach and pancreas in a way that stewed, baked and boiled food do not. He believed that animals living in the open, and eating food in its natural state, were more vigorous and less subject to disease than man.

Dr. C. C. Browning thought that full and rich diet range was necessary in a great majority of cases, both to sustain nutrition, also to provide a sufficient amount of waste material to properly stimulate the colon. This was well understood by farmers and stockmen who knew that horses and cattle fed on grain alone would rapidly lose their appetite and become diseased.

He also called attention to the fact that it was necessary to not only ingest an abundance of food, but to create an appetite for it, and one of the best ways in which this can be done, was living in the open air with exercise if possible, but where fever exists, as in the case of the consumptive, without it. He thought that one of the great advantages of the open-air treatment of consumptives lay in the appetite which it gave, and the large amounts of food which it enables the patient to consume without becoming bilious. Get our patients out of the delusion that drafts are harmful. Teach them to sleep every night with a current of fresh air blowing

across the face, and half their dyspepsia would disappear.

Dr. C. Van Zwalenburg of Riverside, read a paper entitled "Shall We Open the Abdomen in the Presence of Acute Inflammation of the Peritoneum?" He held that an intelligent conservatism in this class of cases was productive of best results. He stated that during his practice in Riverside he had treated thirty-five cases of appendicitis without operation, all of which recovered. He had also found that many cases of peritonitis, from various sources, including tuberculosis, had recovered by a policy of letting alone. He had found great satisfaction in the Ochsner method of treatment in appendicitis.

Dr. A. W. Lobingier's paper on the subject of "The Conservative Surgery of the Tubes and Ovaries" was illustrated by numerous drawings and diagrams. He referred to stricture of the isthmus of the tubes, and methods of operating for this condition. His experience with grafting of the ovary had not up to the present time been favorable. He deprecated radical and unnecessary interference with organs, or inflammatory adhesions, and particularly emphasized the importance of limiting the handling and exposure of the viscera to the smallest extent possible, and the avoidance of poisonous or irritating antiseptics and flushes in the peritoneal cavity. He described several original procedures for reducing interference and exposure to a minimum, at the same time providing for free escape of pus and serum.

Dr. C. D. Lockwood of Los Angeles, opened the discussion of both papers by calling attention to the necessity of perfect drainage in abdominal surgery. He agreed with Dr. Lobingier that the pendulum of surgery is swinging back again in the direction of conservatism, and the reduction of removal and interference to only what is absolutely necessary.

Dr. Lemoyne Wills referred to the admirable original work done by the late Dr. J. McCone of Los Angeles, since deceased, in experimental transplantation of the ovary, stating that his success in this operation had been really remarkable, anticipating the results of European experimenters, and thought that his early death had been a serious loss to the cause of Medical Science.

Dr. Beardsley agreed with Dr. Van Zwalenburg that there had been entirely too much rash and unnecessary surgery of the abdomen. He had had most satisfactory experience in a number of cases of appendicitis with the Ochsner, or starvation method of treatment. He also spoke highly of Murphy's system of drainage of the peritoneum of making an opening only sufficiently large to admit the drainage tube, and closing it up close around it.

Dr. D. C. Strong of San Bernardino, thought that while the Ochsner treatment was excellent in its place, that it was being used in an unintelligent manner to a dangerous degree as a substitute for operation in appendicitis. This he was sure was not Dr. Ochsner's intention or method, as it was only used in cases seen forty-eight hours or more after commencement of the attack, or such as were from various causes unsuitable for immediate operation.

Dr. W. W. Beckett of Los Angeles, heartily endorsed Dr. Strong's remarks, and believed that in early cases the ideal procedure was to open at once, reserving the Ochsner method for cases seen too late for operation.

The discussion was then closed by Dr. Van Zwalenburg and Dr. Lobingier, replying to questions as to their methods and experiences.

The meeting was then adjourned until 8 P. M., when the Society re-assembled in the great dining-room as guests of the Arrowhead and discussed an excellent menu.

J. M. HURLEY, Secretary.

San Joaquin County.

The regular monthly meeting of the San Joaquin County Medical Society was held in the Physicians' Building in the offices of Dr. J. P. Hull, January 5, 1906; President Knight in the chair. Members present: Drs. J. P. Hull, Minerva Goodman, Taylor, H. E. Sanderson, A. W. Hoisholt, C. R. Harry, B. F. Surryhne, R. B. Knight, H. W. Taggert, W. M. S Beede and Barton J. Powell.

The following officers and committees were elected to serve for the ensuing year: President, Dr. C. R. Harry; first vice-president, Dr. W. J. Young; second vice-president, Dr. J. P. Hull; secretary and treasurer, Dr. B. J. Powell; delegates to State Society, Drs. Beede and Powell; alternates, Drs. Arthur and Hull. Committee on finance: Drs. W. W. Fitzgerald, F. R. Clarke, C. R. Harry; committee on admission: Drs. M. Goodman, R. R. Hammond, A. W. Hoisholt, R. B. Knight, S. W. R. Langdon; committee on ethics: Drs. H. E. Sanderson, J. D. Young, H. E. Southworth, H. W. Taggert, J. D. Dameron; trustees: Drs. E. Harbert, S. E. Latta, D. F. Ray.

The members discussed the advisability of electing to membership in the local society members of the Homeopathic and Eclectic Schools. The members present were inclined to accept the views as presented by Dr. Philip Mills Jones in his recent lecture in this city, but delayed positive action until after the state meeting in April. It was further decided that the by-laws be so amended that the offices of secretary and treasurer be combined.

Dr. J. P. Hull entertained the society with a paper entitled "A Case of Diphtheria Followed by Multiple Peripheral Neuritis." The discussion was opened by Dr. R. B. Knight. The patient, a young woman of eighteen, and apparently recovered from a severe attack of diphtheria when she was attacked with multiple peripheral neuritis. For thirty-four days the patient was treated with injections of pilo carpine, thirty grain doses of strychnia hypodermatically every four hours, and nutrition was maintained by rectal injections of peptonized milk. The patient is evidently enjoying good health at the present time. In this case antitoxin was not used until after five days when it was used liberally, the attending doctor being unable to procure a supply of antitoxin during this time.

After liberal discussion of the case, Dr. Hull banqueted the members present and the society adjourned to meet at the office of Dr. Minerva Goodman the last Friday in the month.

BARTON J. POWELL, Secretary.

Santa Clara County.

The meeting of the society, held December 20, 1905, in the parlors of the St. James Hotel, San Jose, opened at the hour of 7:15 P. M., and was attended by the following members: Drs. Harris, Frasse, Snow, Wagner, Fraser, Hall, Jordan, Burns, Trueman, Holbrook, Asay (presiding), and Osborne, secretary.

The following applications were received: Dr. William Simpson, San Jose; Dr. Howard Black, Palo Alto; Dr. Clelia Duel Mosher, Palo Alto; Dr. Robert G. Reynolds, Palo Alto. The applications having been passed upon by the Committee on Admissions and reported back favorably, they were elected to membership.

Dr. Frasse presented for clinical consideration a lady who had been subjected over seven years ago to surgical operations for extirpation of cancerous growths. The parts were exposed and examined, showing absolute freedom from any signs of the former trouble and it was the opinion of the members that the operation had been a remarkably successful one.

Dr. Frasse also presented a patient with cretinism, previously before the society, to demonstrate the

results of treatment, during the past year. The case showed wonderful improvement and elicited most interesting discussion.

Reports from the society officers were received and filed.

Dr. Ethan H. Smith was granted, on his request, transfer credentials, having removed to San Francisco.

The next meeting of the society will be held Wednesday evening, January 17, 1906, at the parlors of the St. James Hotel, San Jose, at 7 P. M. This session will be a business session with no scientific program, in order that the business of the society that has been accumulating may be disposed of without further delay. Recommendations of the officers and committees relative to adoption of new Constitution and By-Laws, consideration of the proposed Fee Bill, and other important matters are to be discussed. An adjourned meeting will be held in Palo Alto on Saturday evening following, January 20, 1906, at which a rich literary program will be furnished. This meeting will be under special charge of the Palo Alto members. The meeting has been set for Saturday night, so that members from San Jose and vicinity may return on midnight train.

A. E. OSBORNE, Secretary.

Santa Barbara County.

At a regular meeting of the Santa Barbara County Medical Society, held December 18, 1905, the following resolution was unanimously adopted, viz:

Resolved, That a vote of thanks be extended by the Santa Barbara County Medical Society to the editors of *Collier's Weekly*, *Journal of the American Medical Association* and the CALIFORNIA STATE JOURNAL OF MEDICINE, for the bold and effective work in enlightening the public and profession on the Patent and Proprietary Medicine evil. The secretary to communicate a copy of this resolution to each.

* * *

The Santa Barbara County Medical Society held its annual meeting for the election of officers in the parlor of the Arlington Hotel, January 8, 1906. The meeting was called to order by the president, Dr. William H. Flint, the secretary, W. B. Cunnane, at his desk.

After the reading of the minutes of previous meeting the election of officers for the ensuing year was declared in order and balloting brought the following results: President, W. B. Cunnane; vice-president, David A. Conrad; secretary, William T. Barry; treasurer, C. S. Stoddard.

On motion a vote of thanks was extended the retiring officers.

Refreshments and adjournment followed.

WILLIAM T. BARRY, Secretary.

Sacramento Society for Medical Improvement.

Regular monthly meeting called to order by President Twitchell, December 19, 1905, twenty members present.

A communication from the Secretary of the State Society relative to the law forbidding advertising of "grossly improbable statements," was received and filed.

A set of resolutions offered by Dr. W. A. Briggs, relative to the "nostrum" evil was, in the absence of the author, laid over for action at the next meeting.

Dr. F. G. Fay of Sacramento, having made application for membership according to the form recommended for such applications by the A. M. A. and the Secretary reporting that Dr. Fay's credentials were satisfactory, i. e., a diploma from the Bennett College of Eclectic Medicine and Surgery issued March, 1886, and a California State license of October, 1886, a ballot was taken and Dr. Fay duly elected a member of this society.

Dr. S. E. Simmons reported, and showed photographs of a case of myxedema and presented before the society a male adult patient of powerful physique, 204 lbs. weight and gaining, for diagnostic commentary as he was apparently developing tuberculosis of the dorsal spine.

Drs. Wright and Wilder reported cases of pneumonia treated with massive doses of quinine.

A general discussion followed on the interpretation and enforcement of the quarantine regulations as applied to scarlet fever.

E. M. WILDER, Secretary.

COOPER SCIENCE CLUB.

(Concluded from page 27, Vol. IV, No. 1.)

"The Development and Comparative Anatomy of the Pectoral Muscles" was expounded by Dr. Blaisdell in his paper as follows:

In giving a resumé of the development of the pectoral muscles it is proper to commence with the development of the mesoderm. If a transverse section of the bilaminar blastoderm of a chick be studied, and this section should be made through the primitive streak, it will be observed that the cells at the side of the streak are undergoing proliferation, and if an examination of a section of a slightly older blastoderm be next viewed, it will be observed that these cells have increased and extended laterad between the ectoderm and entoderm, and besides, they will be found to be closely associated with the entoderm, as can be exhibited by a series of older embryos. The entodermal cells undoubtedly multiplying and being cast off by a process of delamination, the mesoderm, therefore, having a double origin, but chiefly from the entoderm. It must be borne in mind that other embryonic structures are developing at the same time, especially the neural canal; the mesoderm is extending cephalad along the sides of the anlage of the central nervous system as well as laterad and caudad.

As development of the mesoderm proceeds, it will be observed to be thickest along the sides of the neural canal and thinning laterad, constituting, respectively, the paraxial and lateral plate of the mesoderm.

By the appearance of a horizontal cleft in the lateral plate, the mesoderm becomes divided into two laminæ—the outer or somatic, by union with the surface; ectoderm constitutes the somatopleure. The inner, or splanchnic, by union with the entoderm, constitutes the splanchnepleure.

The mesodermal cells touching this cleft cavity or primitive celom take on an epithelial character and become the mesothelial cells. The ectoderm and entoderm are epithelial from the beginning, the mesodermal cells acquiring an epithelial character. If the series of sections already referred to be studied, it will be seen that the mesodermic cells are at first distinct; that they soon form a cellular network, and then differentiate into the mesothelium and certain cells which migrate out of the mesothelial area and become more distant from each other, but connected together by protoplasmic processes and to the mesothelium, constituting the mesenchyma. The spaces between the cells are filled by a protoplasmic intercellular substance. It is possible that all of the mesodermal cells are first tranformed into mesothelium and then partly into mesenchyma.

During the third week in the human embryo the paraxial mesoderm undergoes segmentation by the appearance of transverse clefts. This occurs first in the cervical region, and by this segmentation a series of quadrangular bodies or mesoblastic somites will be observed along the sides of the neural canal when the embryo is viewed dorsally and from the surface. This segmentation proceeds gradually caudad. At the same time an intermediate mass of mesoderm is

differentiated between each mesoblastic somite and the walls of the celom to constitute the nephrotome, and is primarily concerned in the development of the excretory organs of the embryo.

A study of the development of the mesoblastic somites would best be pursued by making use of some of the lower members of the phylum chordata, typically the amphioxus, where there is a distinct bilateral outpouching of the mesothelial mesial wall of the celom into the mesoblastic somites of each body segment. By this process a portion of the celomic wall becomes pinched off and enclosing a cavity. Therefore, each mesoblastic somite contains a closed cavity, the walls of which are mesothelial, and constitutes the myotone, the cavity the myocele. It is probably proper to homologize those with similar structure in the mesoblastic somites of the highest vertebrates. The somites of the earliest human embryos contain a closed myocele which early becomes closed by proliferating cells. The myotome is separated from the neural canal by a mass of mesenchyma, which differentiates into the meninges and vertebra of each segment and constitutes the sclerotome.

The myotome consists of an outer and an inner layer, the two passing into one another at the dorsal and ventral edges and are in close contact with each other as development proceeds. The outer layer stains more deeply than the inner, and is the cutis plate, or dermatome, being concerned in the development of the corium of its own segment. The inner plate is the muscle plate, or myotome proper, and develops the musculature of its own segment. Note that the myotome is mesothelial in origin and develops voluntary muscle, which are often spoken of as mesothelial muscles as distinguished from the involuntary or mesenchymal muscles. As each myotome grows dorsally it also extends ventrad between the dematome and somatic mesoderm. As the myotomes develop, each receives a nerve supply from the nerve of its own segment, so that it is possible to trace the history of a myotome by its nerve supply, no matter what changes it may undergo; e. g., the serratus magnus is supplied by the posterior thoracic nerve, which arises from the fifth, sixth and seventh cervical nerves, and therefore is developed from the fifth, sixth and seventh cervical myotomes.

Each myotome may undergo any of the following changes:

By fusion to form a single muscle, as e. g., the serratus magnus from three myotomes.

By longitudinal splitting, as in case of the sternomastoideus and trapezius.

By horizontal splitting, as in case of the external and internal oblique and transversalis muscles of the abdominal wall.

By migration, as in case of the serratus magnus.

By degeneration as a whole or in part to form aponeurotic sheets, e. g., the aponeuroses of the abdominal muscles.

By change of direction of the muscular fibres, as in case of the three abdominal muscles already named.

One or more of these changes may occur in the development of a single muscle.

The limbs begin to develop in man about the twenty-first day of development as buds that grow out from the sides of the body and from several segments, as indicated, from the nerve supply to the myotomes, the latter growing out in the dorsal part of the bud and around the distal part to return to the body in the ventral part of the bud, so that several myotomes form a covering for the mesenchymal core of each bud. The myotome, or muscle-plate, is in turn covered by the dermatome or corium-plate superficially. But let it be borne in mind that the mesenchymal core develops into the skeleton and ligaments of the limb.

The myotomes of the upper or fore-limb bud grow ventrad to reach the midventral line, the ventral myotomic sheet undergoing one or more of the changes already indicated undoubtedly differentiates into the following: a cephalic portion gains a firm attachment to the developing sternum; a caudal portion that migrates dorsad to gain attachment to the thoracic and lumbar vertebral spines, and an intermediate portion which does not gain any firm attachment.

The sternal portion constitutes the pectoral mass from which the pectoral muscles have their origin, and are to be considered as intrinsic appendicular muscles. The latissimus dorsi is to be regarded similarly, but having gained a dorsal attachment, the intermediate portion develops the panniculus carnosus so well observed in many quadrupeds and attached to humerus by an axillary arch, as in the dog, horse, etc., it being that thin muscular sheet by which they shake the skin over the sides of the body, and so strongly developed in the hedgehog (musculus orbicularis) and ornithorbynchus.

By the nerve supply to the pectoralis major we are enabled to state that it was developed from the fifth, sixth and seventh cervical myotomes; the pectoralis major from the first dorsal myotome; the subclavius from the fourth and fifth cervical myotomes; the latissimus dorsi from the fifth and sixth cervical myotomes.

I wish to interpolate at this point that I consider that the sterno-cleido-mastoideus, trapezius, deltoid, levator anguli scapulæ and rhomboidei muscles are developed from the dorsal parts of the appendicular myotomes, and by a little study can be correlated segmentally with the ventral sheet.

Comparative anatomy aids us in understanding the evolutionary development of the pectoral muscles in man, and this through the study of the primate group, viz.: lowest or quadrupedal primates, lemurs and marmosets; the lower monkeys; lastly, the anthropoid apes (orang, gibbon, chimpanzee and gorilla); man, the highest primate.

The pectoral mass consists of two layers—a superficial or ectopectoral (pectoralis major), and a deep or entopectoral (subclavius, pectoral minor). At this point recall the origin and insertion of the pectoral muscles in man, the twisted condition of the pectoral major at insertion, and its three portions—clavicular, costo-sternal and abdominal, the former having the lowest insertion at humerus, the latter the highest.

In the lemur *(Nycticebus tardigradus)* the deltoid is attached to the outer third of the clavicle. The ectopectoral layer has no clavicular attachment, but is attached to the midline of the sternum, the abdominal portion uniting the two planes at their caudal margins, and is interesting as being a common non-differentiated origin of the ecto- and entopectoral layers. The pectoralis minor and subclavius arise from the sternum under cover of the pectoralis major. The subclavius is broad and the pectoralis minor is rather rudimentary. A ventro-lateral thoracic panniculus is present and is attached by a well developed axillary arch which crosses the latissimus dorsi without having a direct connection with it, which, joining the abdominal non-differentiated portion, is inserted under cover of the deltoid into the lateral tubercle of the humerus and lateral surface of the shaft of the same.

In the common marmoset *(Hapale jacchus)* the pectoralis major is free *at its caudal margin* and attached to the sternum, as in the lemur, and the pectoralis minor is almost continuous with the subclavius and is attached to sternum as in the lemur. There is no panniculus as a distinct layer, but it would appear as if it had been shifted ventrad to constitute an abdominal pectoral, having the same relation to the pectoralis minor at insertion as in the lemur. There

is a distinct intermediate entopectoral slip between the caudal border of the pectoralis minor and the cephalic margin of the abdominal pectoral. The deltoid is attached along clavicle ventrad to the sterno-clavicular articulation.

In the sacred monkey (*Semnopithecus Entellus*) the pectoralis minor has shifted further laterad to side of sternum and some attachment to the costal cartilages, and has also moved somewhat cephalad. The abdominal pectoral is present. The axillary arch is more adherent to the latissimus dorsi and all three are inserted higher up on the humerus. In the black-backed Macaques monkey (*Macacus melanotus*) the axillary arch is more adherent to the latissimus and otherwise characters as in the sacred monkey, but less marked.

In the baboons there is a complete differentiation of the pectoralis major and minor, and there is a wide interval between the latter and the abdominal pectoral. The pectoralis minor is inserted higher up on the humerus.

In the orang (*Simia satyrus*), as a representative of the anthropoid apes, the pectoralis major has shifted laterad to costal cartilages and edge of sternum. The abdominal pectoral has united to the major, except near insertion. There is a clavicular portion to the major. The three elements are separate at insertion into humerus and show the origin of twisting of the pectoralis major tendon in man. The pectoralis minor has shifted to the costal cartilages and at insertion has gained the coracoid process of the scapula. The subclavius has also shifted laterad to the costal cartilage of the first rib. No panniculus is evident, and there is a complete disappearance of it except as an individual variation in man and the anthropoid apes.

It will be observed that in the quadrupedal primated there is no clavicular division of the pectoralis major and that this muscle is attached to the mid-line of the sternum, and that the pectoralis minor is also attached wholly to the sternum, and the less differentiated condition of the two pectoral layers and the pannicular characters should be carefully noted. The characters presented by the lemur and marmoset are of the primary type.

In the lower monkeys the characters constitute an intermediate or transitional type, and will be observed in the tendency to shift laterad of the pectoral layers on sternum to costal cartilages and also of a shifting cephalad along humerus of the pectoralis minor, the well developed axillary arch and tendency to abort by union with latissimus in the higher forms of the present type. In the baboon the pectorals are well differentiated, and a wide interval between pectoralis minor and abdominal pectoral. In the highest or secondary type the pectoralis minor has gained a clavicular portion by a shifting ventrad along clavicle of a portion of deltoid, as indicated by it occasionally being supplied by the circumflex nerve. The abdominal pectoral has united with the costo-sternum pectoral, the latter being the true pectoralis major. The pectoralis minor has origin from costal cartilages and insertion into coracoid process of scapula. The axillary arch is obsolete except as a variatim or as a rudiment in floor of axilla as a partial boundary to the foramen of Landers.

The abnormal muscles (in pectoralis minimus and costo-coracoideus) in man can be readily explained as persistent parts of the panniculus plane, and are but atavistic reversions to a phyllogenetic structural condition, such conditions being normal to allied species.

The resumé was illustrated by charts, blackboard drawings, microscopical sections and dissections.

The works of Hartman, Bischoff, Huxley, Heisler, McMunich, Minot and Geo. Huntington in *Journal of Anatomy* were drawn upon and some original work.

PUBLICATIONS.

International Clinics. Fifteenth Series, Vol. II.—Philadelphia, the J. B. Lippincott Company.

The present volume of this series is up to the usual standard, and contains the following papers:

Treatment. The Treatment of Nephritis in Childhood, by John Lovett Morse; the Therapeutic Indications of Kephir, by G. Hayem; Some Observations on the Treatment of Pulmonary Hemorrhage by Adrenalin Chlorid, by D. Barty King; Suggestions Regarding the Treatment of Neurasthenia, by Robert T. Edes; X-Ray Treatment of Tinea Tonsurans, by Sabouraud and Noire.

Medicine. Diagnosis of Incipient Thoracic Tuberculosis, by Robert N. Wilson; Uremic Psychosis, Multiple Gastric Ulceration and Diabetes Mellitus, by Solomon Solis Cohen; Galloping Typhoid, by H. Roger; Plague, by J. R. Williamson; Seasickness, by A. L. Benedict.

Surgery. Pathology and Treatment of the Hernias of Children, by Edred M. Corner; Injuries of the Prostate Gland, by G. Frank Lydston; Enlargements of the Testis and Epididymis, by Daniel N. Eisendrath; Acute Purulent Generalized Meningitis, by Lermoyez and Bellin; Intracapsular Fractures and Dislocations at the Hip Joint, by Thos. H. Manly; Traumatism as an Etiologic Factor in Infectious Diseases of the Bones and Joints, by Charles Green Cumston; Sarcoma of the Gluteal Region, by J. Garland Sherrill; Use of Scopolamin as a General Anesthetic in Surgery, by Felix Terrier.

Gynecology. Rational Therapy of Uterine Displacements, by Chauncey D. Palmer.

Ophthalmology. Clinical Significance of Exophthalmos, by Mary Buchanan.

Rhinology. Suppurative Diseases of the Accessory Sinuses of the Nose, by Norval H. Pierce.

Physiology. Ehrlich's Side-Chain Theory in Its Application to the Physiology of Digestion, by J. C. Hemmeter.

Pathology. Chromaffin System, with Special Reference to Addison's Disease and Status Thymicus, by Josef Wiesel.

A Hand-Book of Nursing.—Revised edition. Published under the direction of the Connecticut Training School for Nurses. Philadelphia, J. B. Lippincott Company.

This work was originally issued in 1878, and since that time it has passed through several editions and revisions. It is the work commonly known as the "Connecticut Hand-Book of Nursing." The present edition seems to have been considerably revised.

Chloride of Zinc as a Deodorant, Antiseptic and Germicide.—By T. B. McCLINTIC. Bulletin No. 22, U. S. P. H. and M. H. Service.

The conclusion of the monograph is that "Zinc chloride has some properties as a deodorant to recommend it favorably, but its antiseptic and germicidal powers are comparatively feeble, which, with its cost and caustic properties, practically eliminate it from the useful and reliable disinfectants."

University of California Publications.—Physiology. Vol. 2, No. 17. On the Influence of Electrolytes upon the Toxicity of Alkaloids. (Preliminary Communication).—By BRAILSFORD ROBERTSON.

Vol. 3, No. 1, On Chemical Methods by which the Eggs of a Mollusc (Lottia Gigantea) Can Be Caused to Become Mature.—By JACQUES LOEB.

Transactions of the 13th Annual Meeting of the Hawaiian Territorial Medical Society, Honolulu, Nov., 1904.

Physicians' Pocket Account Book.—By J. J. TAYLOR, M. D. Published by the Medical Council, Philadelphia.

The Work of the Interstate Commerce Commission. By H. T. NEWCOMB.

Transactions of the Arizona Medical Association for the years 1902, 1903 and 1904.

The Following Have Been Received.

Transactions of the Rocky Mountain Interstate Medical Association, 1904. Personal Views on the Management of Typhoid Fever, by Edward C. Register. Streptococcus in Gynecological Surgery, Early Diagnosis of Cancer of the Fundus, and Conservatism in Pelvic Surgery, by Hunter Robb. Historical Sketch of the Radical Mastoid Operation, by Ray Connor. Albumin in the Urine of Comparatively Healthy Children, by William A. Edwards. Comparative Anatomy of the Anterior Cerebral Artery, by William W. Lesem. Universal Method of Clinical Writing, by Professor V. Pensuti. Treatment of Simple Fractures, by Henry D. Fulton. Diagnosis and Treatment of Hemiplegia, and the Nature and Treatment of Epilepsy, by Elbert Wing. The Treatment of Gonorrhea, Advice to Gonorrheal Patients, How the General Practitioner Should Treat Gonorrhea, and Some Forensic Problems Concerning Venereal Diseases, by Ferd. C. Valentine and Terry M. Townsend. The Traumatisms of Pregnancy, and Immediate Abdominal Section, by Denslow Lewis.

RESULT OF STATE EXAMINATION HELD DECEMBER 23, 1905.

Passed.

California Med. Coll., 1904—76, 79⅕.
Coll. of P. & S., S. F. Cal., 1904—76⅕; 1905—75, 75¾, 78⅘.
Coll. of P. & S., L. A. Cal., 1905—75⅖, 79¼.
Cooper Med. Coll., S. F. Cal., 1905—75, 75⅝, 78, 82½.
Hahnemann Med. Coll. of the Pac., Cal., 1905—79¾.
Univ. of Southern Cal., 1904—75½; 1905—76, 79⅞, 84, 87, 90½.
Bellevue Hosp. Med. Coll., N. Y., 1895—76; 1904—77½.
Cleveland Med. Coll., O., 1895—76½.
Coll. P. & S., Ill., 1901—75⅖; 1904—89⅝; 1905—79⅘.
Coll. P. & S., Columbia, Univ., N. Y., 1900—78⅔; 1903—77⅞.
McGill Univ., Canada, 1888—85⅘.
Med. & Surg. Sch. of Lisbon, 1896—78.
Northwestern Univ. Med. Coll., Ill., 1905—75.
Omaha Med. Coll., Nebr., 1901—76¾.
Queen's Univ., Canada, 1903—79.
University of New York, 1891—77⅝.
University of Pa., 1895—88½.
Univ. of Toronto, Can., 1905—79⅜.
University of Va., 1892—76⅝.
Washington University, Mo., 1903—75½.
37 passed.

Failed.

California Med. Coll., 1903—69⅘; 1905—59, 72⅞.
Coll. P. & S., S. F., Cal., 1902—70⅔; 1904, 54⅗; 1905, 69⅘, 70⅜.
Cooper Med. Coll. S. F., Cal., 1903—57; 1904—69½.
Univ. of Southern Cal., 1904—69⅝, 70⅔.
American College of M. & S., Ill., 1905, 67⅓.
American Med. Missionary Coll., Ill., 1900—64⅝.
Bellevue Hosp. Med. Coll., N Y., 1887—68½.
Chicago Homo. Med. Coll., Ill., 1879—68⅘; 1886—61⅓; 1903—65½.
Chicago Med. Coll., Ill., 1900—70½.
Coll. P. & S., Ill., 1888—70⅞.
Coll. P. & S., Iowa, 1901—63⅔.
Coll. P. & S., Columbia Univ., N. Y., 1901—67⅝.
Dearborn Med. Coll., Ill., 1904—72⅔.
Ensworth Med. Coll. & Hosp., Mo., 1898—63⅔.
Georgetown Med. Coll., Wash., D. C., 1905—13⅝.
Hahn. Med. Coll., Ill., 1903—64⅝; 1905—64⅔.
Harvard Univ. Med. Coll., Mass., 1887—68⅝.
Hosp. Coll. of Med., Ky., 1891—16½.
Jefferson Med. Coll., Pa., 1888—53⅞.
John A. Craighton Med. Coll., Nebr., 1903—61⅝.
Mich. Univ., Mich., 1872—52⅞.
Mo. Med. Coll., Mo., 1896—24⅞.
Northwestern Univ. Med. Coll., Ill., 1905—70⅓.
Pulte Med. Coll., O., 1900—52.
Univ. of Jena, Germany, 1868—66⅔.
Univ. of Iowa, 1890—51⅞.
Univ. Med. Coll., Mo., 1897—60½.
Univ. of New York, 1884—68⅔.
Univ. of Pa., 1892—71⅔; 1899—59⅔.
Univ. of Va., 1891—67⅞.
Univ. of Vt., 1905—70.
Woman's Hosp. Med. Coll., Ill., 1881—63⅝.
43 failed.

Of the 80 applicants 53.7% failed, and 46.2% passed.

The figures for the California schools are as follows:

California Med. Coll.: 1903—0 passed, 1 failed; 1904—2 passed, 0 failed; 1905—0 passed, 2 failed.
Coll. P. & S., S. F., Cal.: 1902—0 passed, 1 failed; 1904—1 passed, 1 failed; 1905—3 passed, 2 failed.
Coll. P. & S., L. A., Cal.: 1905—2 passed, 0 failed.
Cooper Med. Coll., S. F., Cal.: 1903—0 passed, 1 failed; 1904—0 passed, 1 failed; 1905—4 passed, 0 failed.
Hahnemann Med. Coll. of the Pac., Cal.: 1905—1 passed, 0 failed.
Univ. of Southern Calif.: 1904—1 passed, 2 failed; 1905—5 passed, 0 failed.

New Licentiates.

The following is the list of those who passed the December examination of the State Board:

Paul A. Adams, Geo. C. Albee, Edgar W. Alexander.
Annie Bass, Jas. C. Beatty, Albert Berger, T. W. Bishop, Jos. C. Blair, H. W. Brayton, C. R. Bricca, E. W. Burke, Wm. P. Byron.
Alvin E. Cerf, O. P. D. Cleary, Fred'k Cuttle.
Bertram C. Davies, F. W. de Escobar, J. B. de Faria.
Neil Donald Gunn.
Warren N. Horton.
P. N. Jacobson [1].
M. W. Kapp, M. M Kay, Aquin S. Kelly, Wm. Kenney.
R. H. Mackerras, Jean M. Martin, T. M. McNamara, Jr.
J. B. Perry, H. V. Prouty.
W. J. Quinn.
P. L. Rookledge.
R. M. Smith [2], W. Fred. Stahl.
Mary C. Taylor, A. M. Tower.
S. Y. Van Meter.
A. H. White, Wm. W. Wimer [3].
Chas. E. Zerfing.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Bissell, Nelson C., from Pleasant Grove, Sutter Co., to Marysville, Yuba Co. Hrs. 2-4 and 7-8.

Capps, William, from St. Helena to Migliavacca Bldg., Napa. Cohen, Albert, from Examiner Bldg. to Lincoln Bldg., 369 Sutter st., San Francisco. Hrs. 11-12 and 2-4. **Cosgrave, Millicent,** from 802 Sutter st. to 614 Taylor st., San Francisco. **Culver, Geo. D.,** from add. unk. to 97 Central ave., San Francisco. Hrs. 1-3 and 7-8.

Eaton, F. B., from 590 Sutter st. to Shreve Bldg., Post and Grant ave., San Francisco. Hrs. 10-12 and 2-4. **Evans, Geo. H.,** from 807 Sutter st. to St. Paul Bldg., 293 Geary st., San Francisco.

Gunn, F. H., from Middletown, Lake Co., to Willits, Mendocino Co.

Hastreiter, Rolland F., from 956 W. Jefferson st. to 3605½ Vermont ave., Los Angeles. Hrs. 2-4 and 7-8 **Hill, Harold P.,** from 807 Sutter st. to St. Paul Bldg., 293 Geary st., San Francisco. Hrs. 1:30-3 and 7-8. **Hinkle, B.,** from add. unk. to Van Nyddock appt.

[1] Condition removed.
[2] Condition removed
[3] Condition removed.

San Francisco. **Holbrook, Geo. S.**, from Tuolumne to 500 Examiner Bldg., San Francisco.

McConnell, A. B., from 717 Jones st. to 705 Sutter st., San Francisco. Hrs. 10:30-12:30 and 4:30-5:30. **McKee, Albert B.**, from 533 Sutter st. to 590 Sutter st., San Francisco. **McNaughton, Jas. A.**, from Half-moon Bay, San Mateo Co., to Fay Bldg., Los Angeles. **Meininger, Leo Louis**, from 807 Sutter st. to Central Bldg., 391 Sutter st., San Francisco.

Preston, Walter, from 454 Geary st. to 121 Geary st., Starr King Bldg., San Francisco. Hrs. 1-3 and 7-8. **Prose, Thos. W.**, from Woodland to Thermolito, Butte Co.

Sanborn, T. G., from add. unk. to Pavia Bldg., 643 Sutter st., San Francisco. Hrs. 1-3. **Selfridge, Grant**, from Crocker Bldg. to Shreve Bldg., Post st. and Grant ave., San Francisco. **Silverberg, Melville**, from 1526 Sutter st. to 590 Sutter st., San Francisco. **Stafford, Owen R.**, from 1147 W. 41st st., Los Angeles, to 4206 Vermont ave., Los Angeles. **Strong, D. C.**, from Redlands to San Bernardino.

Topping, Frank P., from 533 Sutter st. to 590 Sutter st., San Francisco. Hrs. 1-3.

Weber, Louis, from add. unk. to 6th and Main sts., Los Angeles.

Yates, J. Ernest, from add. unk. to Crockett, Contra Costa Co.

New Names.

Avery, Ralph W., 1005 Fair Oaks, South Pasadena, Los Angeles Co. Northwest Univ. Med. School, '03. (C) '05. Hrs. 10-12 and 2-4.

Blair, Jas. C., 2747 Bryant st., San Francisco. Med. Dept. Univ. of Calif., '05. (C) '05. Hrs. 2-4.

Brayton, H. W., 594 Castro st., San Francisco. Coll. of Phys. and Surg., '05. (C) '05. Hrs. 2-4 and 7-8.

Cram, Chas. D., San Jacinto, Med. Coll., Ohio, '93. (C) '97. Hrs. 10-12.

Grosshauser, F., Lodi. Univ. Zurich, Switzerland, '99. (C) '01. Hrs. 1-4.

Huckins, J. W., 321 Georgia st., Vallejo. Cal. Med. Coll., '86. (C) '86. Hrs. 10-12, 1-4 and 6-8.

Hyman, Sol., 218 Stockton st., San Francisco. Johns Hopkins Univ., '02. (C) '02. Hrs. 2-4.

Johnstone, E. R., Morro. Coll. of Phys. and Surg., Keokuk, Ia., '92. (C) '96.

Kapp, M. W. (H.) Porter Bldg., San Jose. Cleveland Med. Coll., Ohio, '95. (C) '05. Hrs. 11-12 and 3-5.

McMillan, Edwin H., Redondo, Los Angeles Co. Med. Coll. Northwest Univ., '04. (C) '04. Hrs. 10-12 and 2-4.

Smith, John Lawrence, Grant Bldg., 355 S. Broadway, Los Angeles. Rush. Med. Coll., '01. (C) '01. Hrs. 1-5.

Smith, Q. C., 1055 5th st., San Diego. Med. Dept. Univ., Nashville, Tenn., '68. (C) '76.

Taylor, Mary C., 230 W. Park st., Stockton. Cooper Med. Coll., Calif., '05. (C) '05. Hrs. 2-4.

White, A. H., 504 Kearny st., San Francisco. Coll. of Phys. and Surg., San Francisco, '05. (C) '05. Hrs. 1-3.

Wilson, J. M., 36 N. Las Robles ave., Pasadena. Coll. of Phys. and Surg., Chicago, Ill., '02. (C) '05. Hrs. 11-12, 2-3 and 6:30-7:30.

New Members.

Contra Costa County—**Gregory, Frank S.**; **Hammond, James W.**; **Morrison, John McI.**; **Yates, J. Ernest.**

Los Angeles County—**Austin, S. A.**; **Avery, Ralph W.**; **Claypole, Edith J.**; **McMillan, Edwin H.**; **Smith, John L.**; **Sunde, P. H.**; **Turner, Wm. D.**; **Weber, Louis**; **Wilson, J. E.**; **Wilson, J. M.**

Sacramento County—**Fay, Franklin G.**

San Bernardino County—**Bennette-Nash, A. M.**; **Wynne, Sidney Y.**

San Francisco County—**Gunn, John W.**; **Hinkle, B.**; **Hyman, Sol.**; **Iglick, Samuel**; **Magnus, Max**; **Maguire, Chas. S.**; **Silverberg, Melville.**

Santa Cruz County—**Phillips, Percy T.**

Ventura County—**Huning, F. H.**; **Potts, R. D.**

Deaths.

Bogue, C. V., Glendale.
Castlehun, Fred'k K., San Francisco.
Failing, J. F., Los Angeles.
Finlaw, William, Santa Rosa.
Jones, Chas. W., Redding.
Kroh, W., Los Angeles.
Maynard, Henry H., Los Angeles.
Smith, Percy C., Los Angeles.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

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NOTICE.

The State Society meets in San Francisco April 17th, 18th and 19th. This will be the Semi-Centennial year and the meeting will be an unusually good one.

EDITORIAL NOTES.

RATES TO BOSTON.

The prospect of securing special rates to the next meeting of the A. M. A., which will be held at Boston, June 5th to 8th, seems to be very good indeed at the time of writing. Pacific Coast physicians have for years been the only members of the profession in the United States who had to pay full fare every year in going to these meetings. The Trans-Continental Passenger Association, the body which fixes these things, recently met in Chicago and fixed up rates for the summer meetings. There is to be a meeting of the Knights of Columbus at New Haven June 3rd to 9th and tickets at the special rate fixed will be on sale in this state May 25th, 26th and 27th; the going time is limited to June 9th, and the final return limited to August 31st. From this state tickets "will be sold to Eastern terminals only," and the rate fixed is one thirty-day first-class fare to Chicago and return, plus the rate fixed by Eastern connections. At the time of writing the secretary of the State Society is trying to arrange so that purchasers of these tickets who attend the A. M. A. meeting in Boston may have their return tickets validated in Boston and not be compelled to go to New Haven for that purpose. The prospect of securing this concession seems good, but even if it cannot be arranged, the one-fare rate, plus the local fare from Boston to New Haven, will be very much less than the regular rates which heretofore we have been compelled to pay. It is to be hoped that a large number of our physicians will take advantage of this opportunity to attend what will undoubtedly be the biggest meeting the Association has ever held.

STATE JOURNALS.

The present is an exceedingly interesting period in medical development in this country. The last three or four generations of the last century saw the growth of many medical schools and the output of many physicians. It is safe to say that over half the "schools" were quite unnecessary and as large a proportion of their output were so poorly educated as to have little if any real claim to the title of doctor of medicine. There was nothing to prevent the "diploma mill" from flourishing and nothing to require adherence to any standard on the part of any medical school. A few years ago it was estimated that about half the physicians in this country made no effort to keep up with medical progress by reading current medical literature. But all this is changing. With the advent of the medical practice laws requiring an examination, came a fatal illness to "diploma mills" and private medical schools which did not or could not give a satisfactory medical education. The privately owned and "published-for-profit" medical journal and the nostrum maker appeal not to the intelligent, but to the ignorant, and they, too, are afflicted with the same illness which is causing the timely death of the "diploma mill." All over the country medical organizations are awaking to the fact that it is highly desirable to own and control their own medical publications, and thus have a medium for intercommunication and for publishing the truth. Who, for instance, would look to the *New York Medical Journal,* with its expressed leaning toward the nostrum maker, or the *Medical Record,* with quite as acute a leaning in the same direction, and a dignity which will not permit its editorial pages to know that its advertising pages exist, who would expect either of these journals to discuss in plain words and with unbiased judgment the evils of the nostrum business as they affect the medical profession? Who would expect any of the host of small, privately owned "medical" journals throughout the country, many of them owned and edited by ignorant men and intended to be read by other and quite as ignorant subscribers, to print the truth about the frauds and worthless nostrums which subsidize them? Thus the state journals have come to stay. The day of the uneducated physician is gone, and the day of nostrum-supported and "published-for-profit" medical journals is almost at its end. Some farsighted advertisers have recognized this fact

and are securing preferred space in state journals on long-term contracts; others will presently awake to the fact that the combined circulation of the state journals offers unquestionably the very best advertising medium and that the expenditure of additional money is merely waste—unless it is "hush money."

OTHER CHANGES.

The whole medical profession of this country is just waking up to the fact that it has been slumbering and dreaming for many, many years. But already signs of a new activity are in evidence in many portions of our country. In many communities the best physicians will not make insurance examinations for less than $5. They are discussing the lodge practice evil and coming to realize the insult to professional intelligence in proffering a pittance for wholesale professional services. Most physicians who are not either moribund or densely ignorant are beginning to ask "impertinent" questions about the composition of the all too numerous "secret proprietary" medicines offered to them by glib-tongued "detail men." Occasionally we hear a protest against the gratuitous educational remarks of some boorish drummer who undertakes to tell physicians all about the special and particular virtues and advantages of the nostrum manufactured by his particular "house." Most of the state journals are very much awake and are working hard to try and wake the slumbering members of the profession; but, unfortunately, some are either asleep or, to judge from their advertising pages, are to be classed with the predatory privately owned journals. Doubtless the respectable element in these particular associations will prevail in time and these few state journals will then cleanse themselves and "be good."

CURIOUS CONDITIONS.

The present stirring up in the nostrum business is resulting in some very curious situations. The *Ladies' Home Journal* has published a bill, ideal in its construction, requiring the formula to be printed on the label of all packages of medicine containing alcohol or habit-forming drugs, and the bill has been introduced into the legislatures of several states. It is certainly to be hoped that the influence of Mr. Bok's publication, together with that of the medical profession, may be enough to secure the passage of the proposed law; but the druggists, almost to a man, are fighting it. Probably the National Association of Retail Druggists will attack this proposed legislation wherever it is introduced, and may even impertinently attempt to secure legislation detrimental to any existing medical practice act, as it did in California last January. The proposed law, like all medical practice laws, is for the protection of the public; the medical is an altruistic profession, and every right-thinking physician is heartily in favor of such legislation as makes for the protection of the people. The druggists, apparently, have no thought for the public welfare, but would rather not see a law which would interfere with the sale of habit-producing nostrums. Their N. A. R. D. is fighting the attempt to secure decency and honesty and is aligning itself with the Proprietary Association of America; indeed, it has been rumored that the N. A. R. D. is very much under the influence of the P. A. A. At the same time the druggists all over the country are clamoring for a closer and more cordial relation with the medical profession. Can they expect this to come about if, through their own association, they oppose the very fundamental principles on which medicine is built and for which physicians devote their lives? Is their desire to participate in the criminal profits derived from the sale of habit-producing nostrums greater than their desire to assume more friendly relations with the medical profession? It certainly would seem so. Possibly this may have some bearing upon the rapid growth of the practice of self-dispensing, a practice made more easy and reliable by the rapid development of active principle therapy.

SOME OTHERS.

Two publications reached the JOURNAL office about the same time. One is the *New Idea*, published by the manufacturing house of Frederick Stearns & Co., and avowedly intended for the purpose of presenting statements about articles of its own manufacture to druggists. It is a "house organ." The other is the *Western Druggist*, supposedly a pharmaceutical publication intended for pharmacists and druggists. Referring to some proposed bills, drawn up at a conference at which the Proprietary Association of America was well represented, which it is alleged will control the sale of dangerous nostrums, it says:

"Both the drafts have their origin primarily, not so much perhaps in the desire of the drug trade for restrictive legislation relating to sales of narcotics and of proprietaries containing alcohol as in the demand of the general public for the abolition of the sale of death-dealing narcotics and of venomous whiskies masquerading as medicines. The public wrath against this class of 'remedies' has reached the boiling point, and not without abundant reason."

Yet on another page of the same issue, referring to one of the articles in *Collier's*, which showed up the fraudulent nature of the nostrum crime and which, more than anything else, brought about that public "wrath," and the *Western Druggist* has stated, "with abundant reason," it speaks of the "utter unfairness and reckless mendacity which characterizes the treatment of this subject by the *Collier* writer." Wouldn't that inconsistency jar you? By contrast, the tone of the *New Idea* is refreshingly different. Mind you, it is only a "house" publication, and one would suppose it would be chary of taking sides; yet it warmly and vigorously supports the fight against nostrums of this criminal class, and highly commends *Collier's Weekly* and the *Ladies' Home*

Journal! We certainly must congratulate the "house organ;" it has honesty enough to place decency before dollars.

STILL MORE.

Consistency is not one of the jewels which grace the crown of the *Medical Record*—that medical publication which is far too editorially dignified to take cognizance of the fact that it actually has advertising pages which exploit questionable nostrums. There are some very interesting things about some of the business practices of the *Medical Record,* but that is another story and one which will be written later. At the present time we merely wish to remark that the *Record* has at last discovered that Dr. Billings read a paper on the nostrum evil last July, at the Portland meeting of the A. M. A. Naturally, as the *Record* is one of the privately owned and "published-for-profit" journals, its business office does not take kindly to disparaging remarks concerning the things which pay it revenue, even if these remarks happen to be true. Therefore, the paper of Billings' must be torn to pieces and his words be made to seem foolish. Yet the editorial writers, ignorant though they be that such things as nostrum advertisements exist, are presumably educated physicians with at least some considerable knowledge of truth and honesty; therefore, the editorial condemnation was, we imagine, a difficult matter. Whether difficult or not, it was painfully inconsistent, for after attempting to show that the demand for a knowledge of the actual formula is absurd, and that Dr. Billings was and is rather childish and did not know what he was talking about when he urged that secret formula proprietaries are not only unscientific, but also dangerous, the *Record* winds up its Solonic editorial with the following gem:

"But we are convinced that Dr. Billings does not voice the general sentiment of the profession on this question. If the manufacturers were to publish their formulas—not only the ingredients, but the exact proportions of each—their preparations would undoubtedly find wider acceptance by scientific physicians. Many of these now refuse to use secret remedies, but they would prefer the more elegant preparations of the pharmaceutical chemists (were the ingredients known) to extemporaneous mixtures, whenever in their judgment they met the indications in the individual case."

Dr. Billings is to be congratulated; we do not remember to have read any more satisfactory editorial endorsement of his main contentions than that quoted from the *Record.*

DANGEROUS PRESCRIPTIONS.

Every physician must realize the danger of forming morphine or cocaine habit by frequent and unauthorized refilling of a prescription calling for these drugs; every pharmacist knows the difficulty of preventing refilling without losing a customer. Often, too, when the pharmacist is conscientious and refuses to refill such a prescription without the physician's order, the patient, who may not have known that he was taking morphine or cocaine, becomes suspicious and then is annoyed because he has been given the drug, though he may have been in great need of it at the time the prescription was written. There seems to be only one satisfactory way out of the difficulty, and that is for the physician not to give the patient such a prescription, but to go to or telephone to the drug store and personally order the medicine required, and instruct the pharmacist to put no number on the label; then the patient cannot have the prescription refilled. This plan protects the patient from the danger of ignorantly developing a habit, and it also protects the pharmacist and the physician from the anger of the patient. We know of several physicians who always follow this plan, and it is to be highly commended to all.

GOOD WORK.

The town of Selma, in our state, has an energetic health officer and a wide awake city council. Dr. Steinwand recently recommended to the Board of Health that it recommend an ordinance prohibiting the distribution of free samples of nostrums, and the recommendation was promptly adopted. It is impossible to determine how many children die from the thoughtless taking of samples left on door steps, but certainly the number is not small. The two classes of nostrums most frequently distributed in this criminal manner are cathartics and headache powders or pills. Dr. Steinwand is to be congratulated, as also are the members of the Board of Health and the City Council of Selma. It would be an excellent thing if every community in the state took similar action.

LODGE PRACTICE.

"He's no good; he's a lodge doctor!" This was the comment made to a member of one of our component societies by a patient who consulted him and was asked why he did not use the doctor of the lodge to which he belonged and whose services he could have had for nothing. It goes to show what the public, if properly educated in the real inwardness of the matter, think about lodge practice. It must be said, however, that this incident occurred in a community where there is an excellent county society and where the society and its individual members have been educating the public for some time. A correspondent in another part of the state has asked whether it would not be perfectly proper for a member of the society to accept the position of lodge physician, if the lodge, instead of paying a fixed pittance, paid him the regular fees for whatever work was actually done. This seems to be not only perfectly proper and ethical, but it offers about the only satisfactory solution of the lodge practice evil. In many counties of our state the local society is strong and more or less influential. We would respectfully recommend the careful consideration of the suggestion just given and that an effort be made to get the cooperation of

the various lodges and their adoption of the plan. According to some recently published statements anent the controversy between the medical society of Shasta county and a local lodge, it would seem that the method of compensation suggested would not only save the self-respect of the physician, but actually be an economy to the lodge, for the latter claimed to have had only three sick members in a period of several months.

VALUABLE ORDINANCE.

Another community which is to be congratulated upon the activity of its health officer is Sacramento. Dr. Fay, of that city, has urged and recently secured the passage of an ordinance prohibiting the offering for sale of undrawn fish or poultry. The text of the new requirement is published elsewhere in the JOURNAL and should receive careful reading by every health officer in the state. A public, ignorant of the dangers which it knows not, is liable to do many dangerous things. Large quantities of undrawn poultry are shipped into this state, and it not infrequently becomes tainted before sold. The newspapers, last November, reported the condemnation of several cars of tainted turkeys in Los Angeles and stated that the poor people struggled to obtain them, even in a very bad condition. Doubtless much sickness and possibly death would have resulted from the eating of these tainted fowl.

WEEKLY MEETINGS.

Very encouraging reports come from Sonoma county, where the plan of having frequent meetings has been undertaken after the suggestion of Dr. McCormack. The JOURNAL has just been advised that in Santa Rosa meetings are held every week at the office of the president, Dr. Stuart, and that a similar plan has been followed in Healdsburg, where the members of the local profession meet weekly and report very enthusiastically on the good accomplished. This plan of frequent meetings devoted to practical study and work cannot be too highly commended to every other county society in the state. When the general public comes to learn that county medical societies are not "medical trusts," but that they are the centers of medical education and that the result of the work done in the county society is a direct and important benefit to the public, we will find that many of the dissensions and altercations between physicians and laymen will cease. The general public suffers much more from the ignorance which almost invariably is to be found in a dormant or a quarreling medical profession than do the physicians themselves. If the public knows that the county medical society is such an important organization, educationally, that no good physician could possibly get along without being a member of it, the lodge practice evil will come to an end. But these highly desirable results cannot be secured by a mere paper organization; the physicians of the county *must* get together frequently and *must work*.

HOW YOU CAN HELP.

We take pleasure in reprinting a paper read by Mr. Wibert before the Philadelphia County Medical Society dealing in a peculiarly clear manner with the nostrum business. In the discussion of this paper, as printed in the *Journal A. M. A.*, are some opinions well worth your careful consideration. Here is Dr. S. Solis Cohen's opinion: "If the members of the profession confine their subscriptions and articles to those journals with perfectly clean (advertising) columns, all the other medical journals will fall into line." And again, listen to Dr. Alfred Stengel's idea on the subject: "Dr. Alfred Stengel agreed with Dr. Cohen in the idea of withholding subscriptions or articles from journals advertising such nostrums as are excluded from the *Journal of the American Medical Association*."

Curiously enough the Boston medical society had a meeting just about this time, the whole session being devoted to a discussion of the nostrum and "proprietary" question, which was opened by Dr. Frank Billings of Chicago. The discussion was exceedingly interesting, but is, unfortunately, too long to reprint. Dr. Richard C. Cabot, president, closed the session with the following pregnant comment. "Dr. Cabot suggested one other remedy (of the nostrum evil), namely: *If the 200 or 300 physicians who are contributors of articles to the best medical journals would refuse to allow their papers to be printed in any journal which admits nostrums to its advertising pages, their influence might be decisive.*"

In view of these opinions it is indeed astonishing to see that such men as Nicholas Senn, Frederick C. Shattuck, James M. Anders, Jefferson R. Kean and Rudolph Matas will permit themselves to be used to lend an air of dignity to the *New York Medical Journal*, a publication which not only prints pages and pages of nostrum advertisements, but which has actually gone out of its way and openly opposed the American Medical Association and its work through the Council on Pharmacy and Chemistry. Of this "Advisory editorial staff," Dr. Senn is an ex-president of the American Medical Association and Dr. Shattuck has been spoken of as a presidential possibility; Dr. Jefferson R. Kean is a distinguished officer in the Medical Corps of the United States Army, and Dr. Matas is known to all.

Gentlemen, are you going to continue to lend your moral support to the *New York Medical Journal* in its somewhat more than tacit opposition to the American Medical Association's efforts to secure some slight element of decency in medical advertising? Ponder upon these things, you distinguished gentlemen of the "Advisory editorial staff" of the *New York Medical Journal;* is your attitude exactly consistent? (The list of the "Advisory editorial staff," published in the first issue of the year, is not to be found in recent issues; can it be that these distinguished gentlemen have realized their error and withdrawn from their peculiar position?)

DISCUSSIONS.

Too often the discussion of papers read before medical societies is perfectly aimless and excessively tiresome. Discussion should be short, directly relevant to the particular problem under discussion, and not reminiscent. Unless a comment has equal dignity with the paper, and offers as much to the elucidation of the problem, it has no purpose and is valueless. Too many medical men have the notiou that they must say something or the spectators will imagine them to be ignorant of the subject; in this particular the surgeons are the greatest sinners. This sort of dry and aimless discussion, which reminds one of the desultory remarks at an experience meeting of the old revival order, is most tiresome and is ruinous to the best interests of any medical society.

SUPREME COURT DECISION.

Some time ago the Board of Examiners revoked the certificate of a Los Angeles physician for advertising extravagant claims in the cure of cancer. The case was appealed to the Supreme Court, which body has recently handed down a decision declaring the portion of the medical practice act involved unconstitutional. The proceedings were had under the clause of our law which states that a certificate may be revoked for advertising "grossly improbable statements," and the court holds that this is too vague and does not accurately define the cause for which the certificate may be revoked; in other words, it does not state what "grossly improbable statements" are. The JOURNAL has already called attention to the fact that the revoking clause in our present law is very faulty, and that in consequence the board probably held that extreme care should be used in issuing certificates which it might later find itself powerless to revoke. It is obvious that we must have some alterations made in the present law. The decision does not invalidate the whole law, as some correspondents seem to think, but only that particular portion of it involved in the case at issue.

THE DIFFERENTIATION OF THE (SO-CALLED) SEBORRHEIC CONDITIONS OF THE SCALP.*

By ERNEST DWIGHT CHIPMAN, M. D., San Francisco.

DERMATOLOGY has long suffered from the reproach of an atrocious nomenclature. Different schools recognize the same affection under different names and quarrel over different diseases bearing the same name. One school seeks to bring an entire group under a single title; another resents this generalization and attempts to give a name to every symptom.

Nowhere is the resulting confusion greater than among the diseases of the scalp variously known as pityriasis, seborrhea, seborrheic eczema and seborrheic dermatitis. Scarcely one of these terms will bring the same picture to any two minds. And why should it? If we go to the text-books we find absolutely the same condition described in one place as pityriasis, and in another place as seborrhea. Leave the titles where they are and the descriptions are interchangeable.

And yet in the confusion covered by all these names there exist three definite clinical pictures—each one of every-day occurrence and each one of capital importance.

The three clinical pictures are represented by: (1) A condition of dry scaliness; (2) a condition of scaliness which appears oily; (3) a condition of oiliness without scaliness.

Now what are the known facts concerning these conditions? What are the mooted points? In what, if any, relation do these three conditions stand one toward another?

It will be worth while to consider briefly the history of scaliness or pityriasis. This condition was described by Celsus in the first century, and by Galen in the second century. It was known to the physicians of medieval times under an Arabic name. Until modern times nearly all scaly forms of disease were confused. Even the modern school of dermatology, which may be said to date approximately from the beginning of the nineteenth century confused ringworm and eczema with pityriasis. During the century ringworm was eliminated, but seborrhea was introduced. No bacteriological light was shed upon the question until 1874, when Malassez described an organism which he called a spore.

The word pityriasis, which had survived from the beginning of the Christian era, was nearly brought into disuse by Hebra, with his division of seborrhea into seborrhea oleosa and seborrhea sicca, thereby asserting pityriasis to be simply a form of seborrhea.

Following Hebra came Unna with a new doctrine—the doctrine of seborrheic eczema. Briefly Unna's views are that all the pityriases, using the term in its broadest sense, that is, regardless of whether the scales are dry, greasy or moist, accompanied or followed by exudation, are all one sole affection represented by the name seborrheic eczema. And Unna differentiated seborrheic eczema from eczema in general by its origin on the scalp, its evolution and its clinical behavior. He recognized, furthermore, as cause a particular organism of which we will speak later.

Most recent of all are the investigations of Sabouraud. It is to him that we are indebted for the sharp lines between these hitherto confused conditions. The lines, as drawn by Sabouraud, divide the three conditions which we are considering. For each condition there is a constant lesion and a constant bacteriological expression. Now the three clinical pictures and their relations to one another may be represented in this way.

First comes a patient who complains of dandruff—nothing more. The patient is youthful; the hair is dry and lusterless; between the hairs abound fine flour-like or larger bran-like scales which fall freely upon the shoulders. The scalp is dry, rough and shows no underlying redness. Nothing is said of falling hair. Itching may or may not be present.

A second patient comes complaining of a certain scaliness, attended with a considerable loss of hair. Examination shows a scalp covered with adherent and apparently greasy scales. The hair is not dry and harsh, but soft and glossy. Along the anterior margin of the scalp, extending upon the forehead, is a reddened area covered with yellowish scales. The scalp, especially if drawn tense and allowed to relax, shows a considerable degree of subjacent hyperemia. Questioned, the patient has had dandruff for some time. It is now less noticeable, but the hair is beginning to come out in quite appreciable quantities.

A third patient, a man of 35 years, comes with a history like this: He was troubled as a boy with dandruff and a dry state of the scalp. After some time the scalp became oily and the scales, instead of falling freely, became more or less matted together and adherent. The hair fell out a little at first, but continued in an increasing degree, until a diffuse thinning out of the hair was apparent. Lately the scales have disappeared altogether. A circular area at the vertex and two indentations into the anterior margin of the scalp bespeak an inevitable baldness.

This patient may come with a slightly different history in that he may never have experienced dandruff of any sort, the greasy aspect and the falling hair being the only things which attracted his attention to the scalp. This is unusual, but the subsequent history is alike in either case.

Such are the three pictures. Now what do we know about them? First, what do we know of picture number one?

From the standpoint of histopathology, we know that dry dandruff is a purely superficial condition—that the scale is the result of an hyperkeratosis, that is, a simple hypertrophy of the stratum corneum, nothing more. It is not a concretion of grease from the sebaceous glands, as asserted by Hebra. Of its bacteriology, we know that there is constantly found in the scales the organism which Malassez described as a spore, but which is now better known by the name Flaschen bacillus, which was given to it by Unna. Whether or not this bacillus causes the disease we do not know. Sabouraud is inclined to accept it as cause. The objection to this is that it has never been cultivated and therefore cannot fulfil the requirements of Koch's dictum. Replying to this objection, Sabouraud points to the analogy between the

*Read before the San Francisco County Medical Society, January, 1906.

Flaschen bacillus aud the microsporon furfur, which everybody acknowledges as the causal agent in pityriasis versicolor, but which also has never been cultivated. The fact of its constant occurrence in this condition is undoubted.

It is practically certain that so long as dandruff remains entirely free from an oily element that no abnormal loss of hair need be apprehended. The later development of this greasy character must, however, be awaited as the most common sequence in untreated cases.

An interesting feature of its clinical behavior which tends to support the idea of microbic origin, is the observation of Sabouraud, that when cured, as it easily is, it recurs as easily, appearing first in small isolated foci, from which it spreads peripherally, and ultimately covers a large area with the coalescence of the patches.

Clinical picture number two is not so simple. A section shows microscopically not only an hyperkeratosis, but a minute superficial vesicle and a cornified cone within the follicle. We have something more than a mere superficial hyperactivity. And we are at once confronted with the question as to the source of the oily element. This is a moot point. Hebra considered the scales concrete grease. We know that this is not so, but there remain other theories not so easily disposed of.

Piffard, Van Harlingen, Bulkley and Hallopeau hold that the scales appear greasy because they are mixed with sebum—that there is at the same time pityriasis and seborrhea. Hallopeau even adds in express terms that the grease comes principally from the sebaceous glands and accessorily from the sweat glands.

Unna excludes, or nearly excludes, the sebaceous glands from any part in the formation of this grease and attributes its production to the sweat glands.

Darier and Besnier deny any exclusive role to the glands of the skin and consider that the oil is the result of a greasy para-keratinization.

Elliot considers the sebaceous glands responsible for the oily secretion, but prefers to assign to all glandular activity a secondary part in the production of this condition. For him the essential pathology of the disease is a dermatitis with a secondary seborrheic involvement which varies with the severity and extent of the inflammation.

All this might appear, and may be, purely an academic consideration. Its importance lies in the fact that it indicates the dividing line between the affections properly called pityriasis and true seborrhea. The most recent opinion is that of Sabouraud. For him the essential process bearing on the condition is what he calls "Exoserose," that is, the escape of fluid having the characteristics of blood serum from the true skin into the epidermis. The superficial epidermal cells have become impregnated with this fluid.

Now, while the scales have every appearance of greasiness, both to the eye and to the touch, histological preparations not only do not demonstrate the grease, but histochemistry indicates that the scales contain even less grease than the cells of the normal epidermis. Under these circumstances Sabouraud forms the hypothesis that the exuded serum in the scales of pityriasis contains some soluble fat which is not stained by osmic acid.

Bacteriologically we find in this condition not only the flask-shaped bacillus, which belongs with the dry form, but also an organism called by Unna the morococcus, and described in this country by Welch as the staphylococcus epidermidis albus. We do not find at all the organism which alone is found in pure seborrhea, as later we shall see.

The third picture shows no scales. Along with the disappearance of the scales we lose sight of their characteristic accompanying flora. We now find neither the flask bacillus nor the morococcus. In their stead we meet with a small bacillus called by Sabouraud the microbacillus of seborrhea. This is found in a vermiform filament which may be expressed from the follicular openings by pressure between the finger nails.

One may conceive this microbacillus capable of producing some substance inimical to the life of the other organisms. Upon the body, however, notably over the sternum and between the shoulders, we see the ordinary relation of these affections of the scalp completely reversed. In these locations the oily condition precedes the scaly lesions.

With just what, then, have we to deal? In the first place we find a particular, objective lesion—this vermiform filament in the sebaceous canal; secondly, a uniform microbic manifestation, a fine special bacillus, the microbacillus of seborrhea, which is always to be found in the seborrheic filament, where it dwells by myriads in pure culture. Added to this the clinically manifest oiliness and alopecia.

Here, then, is an entity whose conditions would seem to fit exactly the word seborrhea, or flow of sebum. If we examine the sebaceous glands we find an hypertrophy; if we examine the sebaceous canals, we find them plugged with greasy casts. In these casts we find a definite organism. Shall we not then limit our application of the term seborrhea to this condition in which the most eminent characteristic is an excessive flow of sebum? And in seeking to establish a diagnosis of seborrhea, shall we not examine the orifices of the sebaceous ducts rather than hunt for scales which characterize an entirely different disease?

The conclusions to which we are led are: (1) Dry scaliness of the scalp is not seborrhea, but a definite entity very properly called pityriasis. (2) The name seborrhea should be restricted to an oily condition, chiefly characterized by sebaceous hypersecretion. (3) Between the pure and simple dry scaliness and the frankly oily seborrhea without scales is a condition of oily scaliness which is surely related to pityriasis, but not necessarily related to seborrhea. Under certain circumstances, such as mental or physical depression, from any cause, an inflammatory appearance supervenes and the process extends beyond the limits of the scalp. This is in reality a pityriasis upon which is engrafted a dermatitis or, according to some, an eczema. The terms seborrheic eczema and seborrheic dermatitis, if they are used at all, should be limited to this condition.

These conclusions are verified by the results of treatment. Sulphur, which is of unquestioned value in the oily varieties, is often a distinct irritant to the dry form of pityriasis. Again, tincture of green soap, so promiscuously and comprehensively lauded since the time of Hebra, is not only worthless, but harmful in the dry conditions, while it may work to advantage upon a greasy scalp.

For a simple dry pityriasis, the treatment with ointments, though more troublesome and disagreeable, is correspondingly more effective than treatment with lotions. The head should first be thoroughly shampooed with a superfatted soap, such as the German Kinder-Seife. Following this an inunction of some sort is imperative. An ointment containing one of the tar preparations, such as oil of cade, to which resorcin or salicylic acid may be added, will be found useful here. Preparations of green soap are contra-indicated. This may savor of heresy, but the harmfulness of strongly alkaline soaps is a demonstrable fact.

For the oily forms of dandruff one may advantageously employ a soap suggested by Kaposi, containing sulphur and beta napthol, followed by alcoholic solutions of resorcin. An ointment containing sulphur and salicylic acid may be used alternately with the lotion.

For seborrhea, sulphur is the remedy par excellence. Shampooings with natural sulphur waters—the use of sulphur soaps and applications of sulphur ointments are all indicated.

Some authors emphasize the importance of internal treatments, treatments directed against everything from a gout possessed by one's long deceased grandfather, to a 10% deficiency of hemoglobin or a supposed scrofulous diathesis in the patient's own person.

Nobody denies the advisability of correcting any constitutional condition which is evident. But so many subjects of these various scalp conditions are in perfectly robust health that the search for an internal cause is generally as fruitless as the following of a rainbow for a pot of gold. Personally, I have yet to see a case appreciably benefited by exclusive internal medication, while the results of external treatment are in most cases distinctly satisfactory.

As to the prognosis in any given case, this much may be said: The human scalp seems to furnish the most desired pabulum to certain organisms. Some of these we can exterminate. We can rid a scalp of flask bacilli and morococci and witness a cure of the conditions in which they were present. We can no more say they will not return than we can insure a farmer against the visits of crows to his cornfield because he has shot the first offenders. People are educated to the fact that they must guard their teeth against the ravages of sundry germs. The alternative is a set of ready-made teeth. Similarly must we teach the doctrine that eternal vigilance alone escapes the wig.

Both the dry and the oily forms of pityriasis can be cured, but they recur with notorious ease. As long as the scales fall the hair does not fall. For seborrehic alopecia once started there is no cure. Faithful care will retard the inevitable baldness from five to fifteen years.

NEW ETIOLOGY AND TREATMENT OF CHRONIC BRONCHITIS.

By ALFRED W. PERRY, M. D., San Francisco.

CHRONIC (non purulent) bronchitis with a viscid whitish secretion, is caused or maintained by an edema of the bronchial mucous membrane, and can be quickly relieved by a treatment which will reduce that edema.

Where a general disposition to edema exists, it is easy to attribute local disorders to this condition, but where this condition is absent, such a diagnosis is difficult. Local edemas are expected in Bright's disease, uncompensated valvular heart disease, and especially where there is obesity not due to fat accumulation. Where the disposition to edema is slight it affects those parts which have been weakened by a previous disease, viz., the pleura of a lung which has been affected by a long past pneumonia or pleurisy, an old fractured leg, the bronchial tubes of persons who have had previous attacks of acute bronchitis. I have noticed in the chronic catarrhal bronchitis, of the old and middle-aged, a great relief to all the symptoms when they were freely purged.

This fact and the previous considerations have led me to attribute this form of bronchitis to a local edema of the bronchial mucous membrane, and to treat it by restricting the liquids to a proper proportion with the liquids excreted. In health the urine should form 52 to 68% of the total water taken as drink, in the food, and formed by the oxidation (about 300 cc.) of the hydrogen of the food.

I tried this plan first on stout patients with and without heart or renal disease, and was astonished at the rapid cure of patients who in previous similar attacks had only recovered after prolonged treatment. I have tried this plan in all kinds of cases except with patients who were very thin, with great success.

In this variety of bronchitis the lung tissues are in a state of over-hydration, and this so alters the nutrition of the cells lining the bronchial tubes that an excess of viscid mucus is formed by them. I do not mean that the condition is the same as in ordinary edema of the lungs in which a thin, watery (perhaps bloody) serum is exuded mechanically and is expectorated in large quantities.

A somewhat similar condition may be noticed by any one who has an acute coryza. After the primary tumefaction in the nose has a little subsided, a full meal or a cup or two of any liquid will reproduce the tumefaction with sneezing and secretion of thick mucus in a few minutes, due to the increased general blood-pressure filling up with lymph the part (inflamed) of least resistance. The old dry treatment of coryza of Dr. C. J. B. Williams, which has again come into favor, is based on the same idea.

To find the total water taken we must measure the fluids, weigh the solids, calculate the actual water in the food and also the water formed by the oxidation of the hydrogen of the food. This involves a calculation which is practically too troublesome, and it is simpler to require that the urine should equal 75 per cent of all liquids and semi-solids taken; the rest of the water is eliminated by the lungs and skin. To get good results this procedure must be continued until the patient loses 5 to 15 pounds in weight.

If this restriction does not cause loss of weight, the liquids must be diminished still more.

These patients usually take too little solid food, in which case the diet must be increased until it contains the minimum of 50 grammes of dry proteids, 300 starch and 75 of fat.

The principle is to diminish the water in the body in the hope that any local accumulation in excess will also decrease. The chloride of sodium in the food must be greatly reduced; besides increasing thirst it has a great attraction for water in the body, is stored up in some tissues and retains water in them by this property; it is excreted with difficulty by damaged kidneys.

French authorities have given much attention to this subject lately. R. Marie[1] finds that where chloride of sodium is not eliminated freely the excess does not remain in the blood, but passes into the lymph spaces; still increasing there, more water is drawn from the blood, the tissues become over-hydrated and edema results. Widal, Froin and Digne[2] found dechloridation of the diet beneficial in most cases of nephritic edema and in 30% of the cases of cardiac edema.

Vaquez and Laubry[3] also found dechloridation in cardiac decompensation of great value.

Cases of Chronic Bronchitis Treated by Restriction of Liquids.—Mrs. M., age 60; wt., 215 lbs.; ht., 5 ft. 7 in.; general health always good; has had for years annual attacks of bronchitis, lasting for months and often only cured by leaving the city for the summer. In 1903, had a severe attack. This was treated solely by a thirst reduction cure until 15 pounds weight had been lost; this cured the cough entirely in less than one month and she remained perfectly well until 1904, when having regained her former weight she had another severe attack which was promptly cured by the thirst reduction. This was again repeated in the spring of 1905.

Miss L., age, 25; wt., 163; ht., 5 ft. 8 in; general health good except obstinate attacks of bronchitis with slight asthma, several times a year; in 1903 during a severe attack I tried the thirst reduction cure; in one week much improvement, and in 6 weeks, with a loss of 10 pounds, entire cure; and for 2 years during which time the reduced weight has been maintained, has been free from cough and asthma.

Mr. F., age, 70; ht., 5 ft., 4 in.; wt., 130 lbs; general health good, occasional coughs lasting several months. In 1903 severe bronchitis with much dyspnea; after several weeks' medical treatment without benefit, tried the thirst reduction treatment as I had found that he was taking too much liquid in proportion to the solid food; he improved greatly in a week and by the time he had lost 5 pounds his cough was well and he had gained strength.

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[1] R. Marie Compt Rendus de la Soc. de Biol. Nov. 20, 1903.
[2] Bull. Soc. Med. des Hop., Nov. 19, 1903.
[3] Ibid.

I have given the histories of only 3 cases, as they are types of the disease as treated in very stout, in moderately stout and in thin persons.

I have the record of 17 other cases treated in the same manner in the last 3 years with similar good results. I wish to say that all of these patients had been treated by me prior to the thirst reduction cure by the use of iodide of potass, the ammonia salts and counter irritation to the chest with but slight benefit, and also by digitalis and strychnia when the heart showed any evidence of insufficient action.

In one additional case I failed to improve at all:

Mrs. V. N., age 50; ht. 4 ft. 11 in.; wt. 162; with a pale, pasty complexion, and evidently the subject of water-obesity, with chronic bronchitis of the trachea and large tubes; in two months I was able to reduce the weight 3 lbs. only; she had a low blood pressure for her age, and this I find is an unfavorable condition in reducing the weight by drink restriction.

This treatment is best suited to patients with a rather abundant whitish, viscid mucus, which is expectorated with difficulty and who have some dyspnea and uneasy rest at night from the cough.

THE ELIMINATION OF THE NOSTRUM TRAFFIC AN EVIDENT DUTY OF AMERICAN PHYSICIANS.*

By M. I. WILBERT, Ph. M., Philadelphia.

WHAT is a nostrum?

Why should nostrums be eliminated?

Why should physicians be interested in their elimination?

As an answer to the last and certainly the most directly interesting of these three questions it may be pointed out that, apart from the duties and obligations imposed on physicians by the traditional oath of Hippocrates, the practice of medicine in every state is hedged about and protected by laws that are designed to prevent the ignorant and the incompetent from imposing on the people of the commonwealth, and also, in a measure at least, are designed to protect regularly licensed members of the medical profession from imposition and unnecessary competition in the practice of their science or art.

The members of the medical profession, on the other hand, in thus seeking and accepting the protection secured to them under these several statutory enactments, are expected to guard and to protect the lives of the citizens of the state from infection and disease and, incidentally at least, to point out the dangers and, if possible, prevent the use, or at least the abuse, of anything that will in any way endanger the health or the well-being of the individual members of the community.

It is in this capacity as guardians of the health and the well-being of the individual members of the community that physicians are in duty bound to take cognizance of the present widespread inquiry into the status of nostrums and their possible deleterious effects on the health and even the lives of unwitting or indiscreet consumers.

What is a Nostrum?

As an answer to the question, What is a nostrum? we may safely accept the usual dictionary definition and include as nostrums, or at least as objectionable nostrums, all medicines "the ingredients of which are kept secret for the purpose of restricting the profits of sale to the inventor or proprietor." Personally, I believe that the word nostrum, in keeping with its evident derivation from the Latin word *noster*, might properly include all medicines or medicinal preparations in which any one individual or firm claims, or maintains, a proprietary right, either by secrecy, trade privileges or official letters patent, thus making the word nostrum practically synonymous with the term proprietary medicine, as used at the present time. I myself believe that this broader definition is quite in harmony with existing conditions and fully in keeping with the facts.

Restricting the word nostrum, however, as being applicable only to proprietary medicines which are in any way secret, or for which extravagant claims are made, as therapeutic agents, I am sure that you will readily agree with me that under no condition is the use of such substances in keeping with what purports to be a scientific occupation, and least of all can their use be made compatible with that most important and most responsible of all duties—the conservation and preservation of human lives.

Surely you will agree with me that if there is any one field of scientific investigation in this wide world that should be absolutely free from commercialism, or even a suspicion of secrecy, trickery and fraud, it should be the science of medicine in the very widest application of that term.

How far removed we are from even an approximate realization of this ideal becomes evident when we learn that at the present time nostrums appear to constitute fundamental necessities in the armamentarium of many physicians, as well as being the ever-ready cure-all recommended by blacksmiths and tailors.

The reasons for this unfortunate state of affairs are varied. In the first place, we must not forget that nostrums, even the vilest of them, are not readily differentiated from what might be perfectly legitimate proprietary medicines, and we must also bring ourselves to realize that manufacturers of otherwise unobjectionable remedies have adopted, and are now using, highly objectionable methods in exploiting their preparations.

Another potent factor in developing the present widespread use of nostrums by physicians is to be found in the fact that the physician who is at all susceptible to extraneous influences can always find, ready at hand, literature suggestive of the curative qualities of nostrums. Even in some of our present-day monographs and text-books on therapeutics, in which the application and uses of the better known and official remedies are fairly buried in a mass of contraindications and verbose descriptions of untoward results, we find that the indications and uses of the newer remedies are frequently copied verbatim from the advertising material sent out by the manufacturer, who usually takes very good care that this kind of literature never contains even a suggestion of anything derogatory to the product he advertises.

The medical practitioner, not appreciating that the derogatory testimony, in connection with the older and official remedies, represents the accumulated evidence of decades, if not of centuries, of continued use, naturally enough turns to the remedy that has little or nothing recorded against it. After a physician has met with repeated failures in the use of any given substance, he may casually inquire into the reason for this almost utter lack of disparaging evidence, in connection with the newer remedies. If he looks far enough, he will find that one reason, and a very important one, is to be found in the fact that few, if any, of us care to give publicity to our failures, no matter in what line or in what direction.

The second, and by far the more potent and more evident reason, however, is to be found in the fact that practically all new remedies belong to this gigantic class of nostrums that threatens to stultify and to debase the practice of medicine by suppressing all information in any way derogatory to the commercial success of any particular preparation.

"Ethical" Preparations.

Some of you may have the feeling that there is a deep, wide something that naturally separates so-

*Read before the Philadelphia County Medical Society, Dec. 27, 1905. Reprinted from the *Journal A. M. A.*

called "patent" medicines, or popular nostrums, from the "ethical" proprietaries that are advertised exclusively to physicians.

I want to assure you, and to assure you most positively, that, at the present time at least, this chimerical something exists only in the minds of well-paid detail men, and is the justification that is so anxiously sought for by editors of medical journals that depend largely on the advertising of nostrums for their existence.

That manufacturers themselves do not appreciate this distinction is to be noted by the fact that 21 per cent, or fully one-fifth of the members of the Proprietary Association of America are firms that exploit strictly "ethical" preparations, while an additional number of the members are connected either directly or indirectly with the manufacture, or at least the sale, of ethical preparations in addition to making nostrums for popular use.

That jobbers or wholesalers do not recognize the distinction is evidenced by the fact that antijag, antikamnia, celerina, cerebrine, curalene, opticura, ovarine and ozonine to the number of some twenty-five or thirty thousand nestle cheerfully side by side, in strict alphabetical order, in the proprietary medicine catalogues that are periodically issued by these firms. As for the retail druggist, he has long since found it to be to his advantage to array these articles promiscuously on his shelves, or eveu in his shop window, labeled at cut-rate prices.

If you were to go into the shop of the corner druggist and, as a layman, ask him to sell you an ounce of hydrated chloral, as such, he would probably refuse. If, however, you were to ask him to sell you a bottle of bromidia, he will be only too glad to supply you with practically the same amount of chloral, plus a number of other active ingredients, at cut rates; that is, from 10 to 25 per cent below the regular retail price. Some druggists might refuse to sell you half an ounce of acetanilid, but practically all will willingly sell full or broken packages of antikamnia, Kohler's antidote, ammonal, oraugeine or a hundred and one similar compounds, including their own. Cut-rate druggists also advertise phenacetin, sulfonal, trional and even veronal, though they are prevented by a sense of decency or propriety, or it may be by law, from offeriug codein, morphin or cocain in their regularly issued price lists. Some retail druggists have gone even further in their zeal to popularize "ethical" proprietaries. They occasionally issue a special cut-rate price list of "Prominent Pharmaceutical Products Frequently Prescribed by Physicians." Such a little book is useful in two ways—it induces your patient to buy outright a full bottle of the nostrum that you have prescribed for him, at the same time retaining your prescriptiou as authority for its continued use; and it also serves as an indication of the ethical preparations that are available to such of the laity who think that, because they are prescribed by doctors, "ethical" preparations are necessarily more efficient than the ordinary "patent" medicine or popular nostrum.

If the promiscuous sale of peruna, Hostetter's bitters and Pinkham's compound is to be discouraged and decried, on account of the alcohol they contain; if the sale of catarrh cures containing cocain is to be generally prohibited, what steps, if any, should be taken to discourage the promiscuous sale of such "ethical" preparations as bromidia, papin, chlorodyne, somnos and a host of other scarcely less dangerous nostrums, such as vin Mariani*, that are daily sold to the laity?

Advertising Methods.

That even the most reputable manufacturers of proprietary preparations have developed a tendency to suppress the publishing of derogatory reports must be evident to all who will take sufficient interest to peruse the advertising material they send out. You have, no doubt, been appealed to by manufacturers of synthetic chemicals to report your successes with the use of their preparations. But have you ever been asked to report your failures, the untoward results that you have met with or the drug habits that have been formed? Have you ever met with an article outlining the contraindications for the use of their remedies in the pamphlets with which these firms supply you at frequent intervals? Do you believe that the active coal-tar preparations are applicable in all cases, regardless of age, sex, or physical infirmities? Do you believe that no dangerous and even serious accidents have ever followed their use, and do you know that practically all of the well-known preparations of this character are freely sold to and widely used by the public, regardless of possible consequences? If firms that are guaranteed an absolute monopoly of their products for a period of seventeen years and are further assured of a perpetual prestige by virtue of having been the first to bring forward any given remedy in this country, will deliberately and persistently discriminate in favor of propitious and at times even garbled reports, what can be expected of firms whose very existence depends on a more or less thinly veiled trade secret? Can you even conjecture the depths of direct or inferred dishonesty to which such concerns will descend to create a market for their products?

Properly to appreciate the reasons why the present-day traffic in nostrums should be done away with, we must fully realize that the harmful effects are invariably due to promiscuous and indiscriminate use of any one of them in all, or nearly all, cases that present themselves while that particular nostrum is in vogue. While physicians themselves are largely to be blamed in this direction, it is to the cunningly worded and frequently misleading advertising matter sent out by the manufacturers that we must look for the direct incentive to the misuse and abuse of nostrums. For illustration: When the manufacturers of one of the widely advertised mud poultices claim that their preparation will cure appendicitis, it is an untruth, and in the hands of the inexperienced and the unsophisticated this statement becomes a dangerous untruth and leads to the sacrifice of human lives. When the manufacturers, or rather the vendors, of that elegant confection that "works while you sleep" claim that their product will cure insomnia, liver troubles, intestinal disorders and a host of other more specifically mentioned ailments, they are telling an untruth and a dangerous untruth, because it leads the laity to temporize with what may be serious affections, or, even worse, because the very use of this nostrum may produce a condition that requires the regular use of cathartic medicines and thus lead up to an atouic condition of the intestinal tract, chronic constipation, a reduced power of resistance and a thousand and one possible complications that may follow in their wake.

These are but suggestions of the possibilities for harm that are to be found in connection with the twenty-five or thirty thousand nostrums exploited at the present time. Even admitting that nostrums are active and efficient, and that they are useful under certain conditions, they are nevertheless dangerous and to be condemned because they are not openly and honestly put out on their merits.

From patented synthetics to liquozone and peruna is indeed a far cry in the world of proprietary medicines, and what a mass of trickery, deceit, dishonesty and fraud is to be found between them!

The Council on Pharmacy and Chemistry.

Even to enumerate all of the preparations that are advertised or available would take hours, if not days. To sort them over and to estimate their probable worth, on the available evidence, is a task that would appear to be well nigh interminable. Some attempt is now being made to sort out from this fathomless, boundless mass of material those preparations that are generally considered to be worthy of recogni-

*Mariani and Company state that their preparation does not contain cocaine.

tion or that are at least evidently less objectionable than the rest.

This attempt is being made, in connection with the American Medical Association, by the recently instituted Council on Pharmacy and Chemistry. It is the object of this council to gather evidence for and against the several proprietary preparations that are now being offered to the medical profession of this country, and by comparing the evident status of the several remedies with the rules that have been adopted as a minimum of requirement to decide on their eligibility to appear in a semi-official list or book to be called "New and Non-official Remedies."

That this effort is not being made any too early must be evident to those who realize the ever-increasing number of evidently fraudulent nostrums that are being exploited at the present time. The difficult and thankless task of selecting the more worthy proprietary remedies that confronts the members of the Council on Pharmacy and Chemistry of the American Medical Association would certainly appear to merit your attention and active co-operation.

Co-operation of the Profession.

I believe it is your duty, however, to do more, infinitely more, by taking a personal interest and an active part in this tremendously important undertaking of eliminating at least the more objectionable nostrums of all kinds from popular sale and certainly to banish from the practice of medicine the more objectionable compounds that are exploited as "ethical" preparations.

I also believe that it is the duty of each one of you individually to become thoroughly acquainted with at least some of the phases of the deceit and deception that are practiced by the promoters of proprietary medicines or nostrums and to insist that manufacturers of remedies, designed ostensibly for use by medical practitioners, exploit their wares honestly and in keeping with their merits.

I believe it to be your duty to inquire into the influences that manufacturers of nostrums, individually as well as collectively as members of the powerful and wealthy Proprietary Association of America, have exerted, do exert and will exert on the secular as well as on the professional journals of this country and to try to overcome or, if possible, to nullify this influence by your concerted efforts and action.

It will be idle for you to suppose that any appreciable change in the existing conditions can be brought about by your say-so or by your wishes. The impending conflict, to eliminate only the more evident nostrums from the pale of respectability, while it is admittedly disagreeable and unpleasant, is full worthy of your aid and your attention. For ultimate success it will be essentially necessary that each one of you contribute, not alone occasionally, but frequently and persistently. You can contribute most readily if you will insist that the untoward results from the use of proprietary medicines be given proper publicity in connection with the name of the remedy. You can also assist by informing your patients and your friends of the possible dangers that are to be encountered in the promiscuous or long-continued use of even the least objectionable and apparently most harmless nostrum.

You can also contribute if you yourself will desist from the use of proprietary medicines, with the composition or the limitations of which you are not thoroughly familiar. You will be able to do this the more readily if you will but become more thoroughly familiar with the almost inexhaustible fund of well-known and well-tried remedies of the Pharmacopeia, remedies that are easily tested, readily proved, widely used and are certainly obtainable in any section of this country.

This I believe to be your duty, as citizens of the commonwealth, in return for the protection and the privileges that are being accorded to you.

I believe it to be your duty to your patients, as physicians, in order to merit their continued confidence and patronage. And, last, but by no means least, I believe it to be your duty to yourselves, as men, in order to foster and to preserve your own self-esteem and self-respect.

REPORT OF THE COMMITTEE ON VITAL STATISTICS.

By WM. J. G. DAWSON, M. D., Chairman, Eldridge, Cal.

(*Continued from Page 53, Vol. IV, No. 2*)

SECTION 17. If any physician who is in medical attendance upon any deceased person at the time of death shall neglect or refuse to make out and deliver to the undertaker, sexton or other person in charge of the interment, removal or other disposition of the body, upon request, the medical certificate of cause of death hereinbefore provided for, or shall willfully or knowingly make a false certification of the cause of death in any case, he shall be deemed guilty of a misdemeanor.

If any undertaker, sexton or other person acting as undertaker shall inter, remove or otherwise dispose of the body of any deceased person without having received a burial or removal permit as herein provided, he shall be deemed guilty of a misdemeanor.

Any registrar, deputy registrar or sub-registrar who shall neglect or fail to enforce the provisions of this act in his district, or shall neglect or refuse to perform any of the duties imposed upon him by this act, or by the instructions and directions of the state registrar, shall be deemed guilty of a misdemeanor.

And any person or persons who shall violate any of the provisions of this act, or shall willfully neglect or refuse to perform any duties imposed upon them by the provisions of this act, shall be deemed guilty of a misdemeanor.

Any transportation company or common carrier transporting or carrying, or accepting through its agents or employes for transportation or carriage, the body of any deceased person without an accompanying permit, issued in accordance with the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than fifty nor more than two hundred dollars.

SECTION 18. Local registrars are hereby charged with the strict and thorough enforcement of the provisions of this act in their districts under the supervision and direction of the state registrar. They shall make immediate report to the state registrar of any violations of this law coming to their notice by observation or upon complaint of any person, or otherwise. The state registrar shall have authority to investigate cases of irregularity or violation of law, personally or by accredited representatives, and all registrars shall aid him, upon request, in such investigations. When he shall deem it necessary, he shall report cases of violation of any of the provisions of this act to the prosecuting attorney or other proper officer of the county or municipality, with a statement of the facts and circumstances, and when any such case is reported to them by the state registrar, all prosecuting attorneys, or officials acting in such capacity, shall forthwith initiate and promptly follow up the necessary court proceedings against the parties responsible for the alleged violations of law.

SECTION 19. All acts and parts of acts in conflict or inconsistent with the provisions of this act are hereby repealed.

SECTION 20. This act shall take effect March 31, 1905.

Assembly bill No. 347, introduced by Mr. Gates and passed by the last legislature, amends and re-enacts the laws pertaining to the registration of births, marriages and deaths, and is as follows:

SECTION 1. Section three thousand and seventy-four of the Political Code of the State of California is hereby amended to read as follows:

Section 3074. The State Board of Health shall maintain, at the city of Sacramento, a bureau of vital statistics for the complete and proper registration of births, marriages and deaths, for legal, sanitary and statistical purposes, which bureau shall be under the supervision of the secretary of the State Board of Health, who shall be ex-officio state registrar of vital statistics, and whose duty it shall be, after consultation with the State Board of Health, to promulgate and enforce all necessary rules and regulations that may be required to carry out the provisions of this chapter.

Section 2. Section three thousand and seventy-five of said Political Code is hereby amended to read as follows:

Section 3075. The State Board of Health shall appoint a competent statistician to assist the state registrar of vital statistics and such clerical and professional assistants as may be required for the proper discharge of the duties of said registrar. (Said statistician shall also be an assistant to the secretary of the State Board of Health.)

The statistician so appointed shall hold office at the pleasure of the board, and shall receive an annual salary of eighteen hundred dollars, payable out of the general fund of the state from money not otherwise appropriated at the time and in the manner in which state officers are paid.

The compensation for clerical and professional assistants shall be fixed by the board, and shall be payable from its fund for contingent expenses provided in the general appropriation act.

Section 3. Section three thousand and seventy-six of said Political Code is amended to read as follows:

Section 3076. All persons who perform the marriage ceremony in this state shall, within three days after the ceremony, file with the county recorder a certificate of registry of the marriage performed by them, in such form as may be prescribed by the state registrar, which shall contain among other matters as near as can be ascertained, the place and date of marriage, sex, race, color, age, name and surname, birthplace, residence of the parties married, number of marriage and condition of each, whether single, widowed or divorced, the occupation of the parties, maiden name of the female if previously married, the names and birthplace of the parents of each, and the maiden name of the mother of each.

Section 4. Section three thousand and seventy-seven of said Political Code is hereby amended to read as follows:

Section 3077. Physicians, midwives, nurses and other persons assisting at a birth shall return in writing, within five days thereafter, to the county recorder of the county where such birth takes place, in such form as may be prescribed by the state registrar, a certificate of registry of such birth, which shall contain among other matters the time and place of such birth, name, sex, race and color of the child, the name, residence, age, birthplace and occupation of the parents, and the maiden name of the mother, and whether born in or out of wedlock, and such other information as may be required by the state registrar; (provided, however, that in cities having a freeholders' charter, the health officer shall act as local registrar, and perform all duties thereof). In case the child is not named, the recorder or registrar of such locality shall deliver to such parent, next of kin, physician, midwife or other person furnishing such certificate of birth a supplementary blank for report of given name, which shall be filled out and returned as soon as the child shall be named.

In case there shall be no physician, midwife or nurse attending at such birth, then it shall be the duty of the parents of any child born in this state (and if there be no parent alive, then the next of kin of said child) within ten days after such birth to report in writing to the recorder of the county (or health officer of cities having a freeholder's charter) where such birth takes place, in such form as may be prescribed by the state registrar, the date, place and residence, name, sex, race and color of such child, and the names, residence, birthplace and age of the parents, their occupations and the maiden name of the mother, and whether born in or out of wedlock, and such other information required by the state registrar.

Section 5. Section three thousand and seventy-eight of said Political Code is amended to read as follows:

Section 3078. It shall be the duty of every county recorder to receive, without fee or charge, each certificate of registry of marriage and birth (provided, however, that in cities having a freeholder's charter the health officer shall act as local registrar for births and shall receive, without fee or charge, each certificate of birth, and enter the same in the same manner as provided for the county recorder), to enter the same in separate registers, to be known as the "Register of Marriages," and the "Register of Births," in separate columns, properly headed, the various facts contained in the certificates, and the name and official or clerical position of the person making the report. The recorder (or health officer) must carefully examine each report, and register the same marriage or birth but once, although it may be reported by different persons.

The certificates shall be numbered by him and entered in the order in which they are reported to him.

On or before the fifth day of each month each recorder (or health officer) shall transmit by United States mail, carefully inclosed in appropriate envelopes or wrappers, addressed to the state registrar at Sacramento, or shall personally deliver to him at his office in Sacramento, on or before the fifth day of each month, the original certificates of births and marriages filed with him during the preceding month, and shall accompany said certificate with a brief statement of the number of such certificates, and the dates of their receipt. The state registrar shall thereupon file said original certificates of marriages and births, and cause the same to be separately and systematically indexed.

Section 6. Section three thousand and seventy-nine of said Political Code is amended as follows:

Section 3079. For their services as required by section 3078 of this code, county recorders (or health officers of cities having a freeholder's charter) shall, in addition to their compensation for the other duties of their office, be allowed by the Board of Supervisors ten cents for each name registered and reported to the state registrar, which sum shall be paid out of the general fund of the county upon warrants issued quarterly and signed by the county auditor and approved by the state registrar, which warrants shall specify the number of certificates of marriages and births properly registered and filed with the state registrar.

Section 7. Section three thousand and eighty of said Political Code is hereby amended to read as follows:

Section 3080. The state registrar shall prepare a sample form and blank for use in registering, recording and preserving the reports of marriages and births, and shall prepare and issue such detailed instructions as may be required to secure the uniform observance of its provisions and the maintenance of a perfect system of registration, and no other forms of blanks shall be used than those prescribed by the state registrar.

Printed blanks in the form prescribed by the state registrar for the registration of marriages and births shall be furnished to each recorder (or health officer) by the Board of Supervisors of each county or city and county in sufficient quantities, and each recorder (or health officer) shall furnish, without charge, sufficient number of copies to each applicant upon whom is imposed the duty of certifying to a marriage or birth.

Section 8. Section three thousand and eighty-one of said Political Code is hereby amended to read as follows:

Section 3081. The state registrar shall carefully examine the certificates of marriages and births received monthly from the county recorders (or health officers), and if any such are incomplete or unsatisfactory, he shall require such further information to be furnished as may be necessary to make the record satisfactory.

All physicians, clergymen, judges, midwives, nurses, parents or other informants upon whom the duty is imposed of certifying to marriages or births, and all other persons having knowledge of the facts, are required to furnish such information as they may possess regarding any marriage or birth, upon demand of the state registrar, in person or through the local recorder.

Whenever it may be alleged that the facts are not correctly stated in any certificate of marriage or birth theretofore registered, the county recorder shall require a deposition under oath to be made by the person asserting the fact, to be supported by the depositions of two or more credible persons having knowledge of the facts, setting forth the change necessary to make the record correct. Having received such depositions, he shall file them, and shall then draw a line through the incorrect statement or statements in the certificate, without erasing them, and make the necessary corrections, noting on the margin of the certificate his authority for so doing, and transmit the deposition, attached to the original certificate, when making his regular monthly returns to the state registrar. If the correction relates to a certificate previously returned to the state registrar, he shall transmit the deposition forthwith to the state registrar. If the correction is first made upon the original certificate on file in the state bureau of vital statistics, the state registrar shall immediately transmit a certified copy of the original certificate, corrected as above, to the county recorder, who shall thereupon substitute such certified copy for the copy of the certificate in his records. All such corrections and marginal notes referring to them shall be legibly written in ink, typewritten or printed.

SECTION 9. Section three thousand and eighty-two of said Political Code is hereby amended to read as follows:

Section 3082. Any officer or person upon whom a duty is imposed under this chapter who fails, neglects or refuses to perform any of the duties imposed upon him under this chapter, or by the instructions and directions of the state registrar, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished in the same manner as other misdemeanors provided in the Penal Code.

SECTION 10. Section three thousand and eighty-three of said Political Code is hereby amended to read as follows:

Section 3083. The state registrar shall, upon request, furnish any applicant a certified copy of the record of any marriage or birth registered under the provisions of this chapter, for the making and certification of which he shall be entitled to a fee of fifty cents, to be paid by the applicant. Any such copy of the record of a marriage or birth when properly certified by the state registrar to be a true copy thereof, shall be prima facie evidence in all courts and places of the facts therein stated. For any search of the files and records when no certified copy is made, the state registrar shall be entitled to a fee of fifty cents for each hour or fractional hour of time of search, to be paid by the applicant. And the state registrar shall keep a true and correct account of all fees by him received under these provisions, and shall deposit all fees with the state treasurer.

SECTION 11. Section three thousand and eighty-four of said Political Code is hereby repealed.

SECTION 12. All acts and parts of acts in conflict or inconsistent with the provisions of this act are hereby repealed.

Assembly bill No. 300, introduced by Mr. Cromwell and passed by the last legislature, provides for carrying into effect laws on this subject, and is as follows:

Said Board of Health, or chief executive health officer where there is no Board of Health, shall report to the State Board of Health all violations of the state health laws, and of the laws relating to the registration of marriages, births and deaths, which shall come to their or his knowledge.

Assembly bill No. 298, introduced by Mr. Espey and passed by the last legislature, defines the duties of city clerks and city recorders on the subject of vital statistics, and is as follows:

SECTION 1. Chapter 1 of an act entitled "An act to provide for the organization, incorporation and government of municipal corporations," approved March 13, 1883, and acts amendatory thereof, is hereby amended by adding a new section thereto, to be numbered section 9 thereof, to read as follows:

Section 9. The (city clerk) of each municipal corporation where there is no city (clerk) shall have the powers and shall perform the duties of a registrar within such a municipality which are prescribed and required by the provisions of an act entitled, "An act for the registration of deaths, the issuance and registration of burial and disinterment permits, and the establishment of registration districts in counties, cities and counties, cities and incorporated towns, under the superintendence of the state bureau of vital statistics, and prescribing the powers and duties of registrars, coroners, physicians, undertakers, sextons and other persons in relation to such registration, and fixing penalties for the violation of this act."

SECTION 2. All acts and parts of acts in conflict or inconsistent with this act are hereby repealed.

SECTION 3. This act shall take effect March 31, 1905.

INDICATIONS AND CONTRA-INDICATIONS FOR INTRA-LARYNGEAL OPERATION IN TUBERCULOSIS OF THE LARYNX, WITH REPORT OF THREE CASES. *

By CULLEN F. WELTY, M. D., San Francisco.

BECAUSE of the climate of Southern California, a great many people with tuberculosis of the lungs make this their permanent home; others who are not so fortunate come to this climate during the time of the disagreeable weather at their own homes.

Because of this fact the laryngologists of this section have an exceptional opportunity of observing these cases of laryngeal tuberculosis, and it is for this reason that I present this paper at this particular place.

The percentage of laryngeal tuberculosis in lung tuberculosis is estimated very differently by different observers. M. Schaffer, 97 per cent; Lubinsky, 60 per cent; Froumel, 40 per cent; Morral McKensie, 34 per cent; Heinze, 30 per cent; Schech, 30 per cent; Gaul, 27 per cent; Frey, 26 per cent; Krieg, 26 per cent; Buhl, 16 per cent; Willigk, 14 per cent. Probably about 33 1-3 per cent would be a fair average.

Age, between twenty to forty years; more male than female; seldom under twelve years.

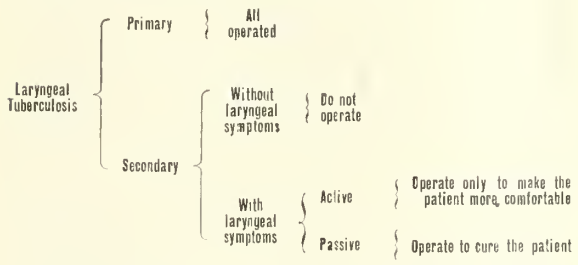
It is well to mention at this place the various pathological lesions that are likely to be found in this class of patients that demand surgical interference (in order of frequency).

First, Edema of the aretenoids and epiglottis; second, Thickening and ulceration of the posterior laryngeal wall; third, Infiltration and ulceration of the false chords; fourth, Ulceration of the epiglottis; fifth, Thickening and ulceration of the true chords; sixth, Granulometa supported by a pedacal should be removed in all cases.

* Read before the Western Section of the American Rhinological, Otological and Laryngological Society, Los Angeles, January 27, 1906.

Heryng and Krause are probably the most radical operators in the world. Heryng, the most radical of all, operating all cases. Morris Schmidt and Shech somewhat less radical than the former; however, they find a few more indications for operation than Hajek.

For convenience I have made a classification that may help somewhat for getting at the various indications for intra-laryngeal operation.



Tuberculosis of the larynx divides itself very naturally into primary and secondary affections. By primary affections we mean that tuberculosis does not exist elsewhere in the individual. These cases are rare and very difficult of diagnosis. Once certain of the diagnosis, the only thing to be thought of is operation. The more radical the operation, the more chance the patient has for complete recovery.

By secondary affection we mean that there is tuberculosis elsewhere in the body, and that this local manifestation of the disease has been brought about in one of three ways (in order of frequency), lymphatics, blood, expired air and mucus.

The secondary affections are further divided into those without laryngeal symptoms and those with laryngeal symptoms. By laryngeal symptoms I mean pain, cough and dismea. Pain may be so intense that the patient will not swallow and from necessity will not eat. It does not take long to reason what will naturally follow. This pain is usually induced by edema and ulcerations. Cough may be so severe that it continues to add to the already inflamed and thickened mucous membranes. Cough is primarily induced by ulcerations, edema and mucous secretions. Dismea may be so severe that it alone threatens life. When it is so marked as this, the only safe procedure is a primary tracheotomy. The cause of the dismea will usually subside with the rest that naturally takes place to the larynx following tracheotomy. Dismea is usually induced by edema and infiltrations.

The patients without laryngeal symptoms we do not operate, because the local condition is not causing any inconvenience or annoyance. It occasionally happens that individual cases may change their grouping as the disease either progresses or improves. However, there are many patients in this class that recover completely without surgical means.

The cases where laryngeal symptoms are present are further divided into active and passive. By active I mean that the tubercular process in the lung is more or less active; that the patient has a temperature of more than 100 degrees F. and is losing weight rapidly. By the passive I mean that the tubercular process is more or less quiescent, temperature below 100 degrees F., and only slight loss of weight.

In the active classification the patients are only operated to be made more comfortable. You do not operate to save the life of the individual. However, *you can assure them with certainty that they will be more comfortable for the balance of their lives.* Some of the cases so operated seem to be followed by a more active manifestation of the primary affection. Heryng, Krause and others think this is simply a coincidence, while others, notably among them Hajek, think this is directly caused by the operation. This condition does happen, and we should be prepared for it, as the patients die in a few days. However, most of the patients so operated feel so much better that they entertain hopes of complete recovery. Usually the lung condition goes on the same as before and the remaining days are free from laryngeal symptoms, which adds very much to the comfort of the individual.

In the passive or quiescent condition a great deal may be accomplished by intra-laryngeal operation. In fact, they are the cases of selection. In these cases we operate to cure the local condition, and in many instances this is accomplished. By destroying the field of infection the patients may entirely recover. It is assumed that the tuberculosis of the lungs is in a quiescent condition, and by such an operation you place the patient in the best possible condition for complete recovery, because the field of infection has been destroyed. In fact, so much can be said on this particular phase of laryngeal tuberculosis that chapter upon chapter has been written upon the subject. Pain is very important in this classification and must be relieved. Cough is more important under this heading than in the preceding, because it is usually induced by the local condition. Should the cough be allowed to continue, the chances of renewed infection are increased.

If dismea is present, an intra-laryngeal operation should not be attempted because the added irritation from the operation will so inflame and congest the parts that there is danger of suffocation from laryngeal stenosis. In such cases a primary tracheotomy is always indicated.

A short time ago I noticed an article in one of the special journals recommending intubation in such cases. I only mention this to condemn it.

About four years ago I saw a patient with laryngeal tuberculosis suffering from dismea, which was induced by infiltration of the false chords and thickening of the posterior wall.

The thickening of the posterior wall was removed, and the patient was requested to wait for an hour. One-half hour after operation there was complete stenosis of the larynx. A rapid tracheotomy was necessary to save the life of the individual. This case was so instructive to me that I will never do an intra-laryngeal operation if dismea is present.

Sometimes, following an operation in this passive group, the patients seem to have a renewed infection with rapid rise of temperature, lose weight rapidly; in fact, all the symptoms of an acute exacerbation of the old lung condition. This lasts for a week or two, and they gradually get back to their former condition. Their improvement is largely dependent upon the condition of the lung, and upon the complete removal of the tubercular process in the larynx. I have not seen any of these patients die for months following.

Partial or complete removal of the larynx for laryngeal tuberculosis I mention simply to condemn, because it is not necessary, and because the mortality of such an operation is of necessity very high, and because the laryngeal disease is only the local manifestation of tuberculosis elsewhere.

You no doubt have noticed and will probably take exception to the fact that I have not spoken of the tubercular process of the lung. If you follow this classification of laryngeal tuberculosis, you will find that it is unnecessary, and you will be able to recommend different procedures regardless of lung condition.

Case 1. Male, age 29, undertaker by occupation, married, two healthy children, wife in good health, father and mother, two brothers and one sister well and healthy; one brother died of tuberculosis at the age of 25. The patient has been perfectly healthy until two years ago, when he began to lose in weight and had a slight cough. This cough increased to such an extent that he was coughing practically all of the time. During the last year he has lost about 25 pounds, has an occasional night-sweat. His temperature does not reach 100° F. By laryngeal examination I find a decided thickening of the posterior wall, which is ulcerated; slight edema of the aretenoids.

Removal of the posterior laryngeal wall; cauterized with 80% of lactic acid. For the next thirty days there was not so much cough, and apparently he was much improved. Up to this time he remained in San Francisco attending to his work, which necessitated his being out a great deal at night. Six weeks after the first operation he had high fever, night-sweats, rapid loss of weight, and a cough that was almost as severe as when he first consulted me. At this time there was decided edema of the aretenoids, which was not interfered with. The patient was sent to the mountains where he could be in the open air the whole twenty-four hours. Returned in one month somewhat improved; occasional night-sweats; was not losing weight; was not gaining; temperature 100° F. The cough seemed to be the only annoying symptom from which he complained; the aretenoids were more edematous than before. I scarrified, which gave him relief which lasted for ten days. Returned to the city at the end of thirty days in practically the same physical condition that he was in thirty days before. The edema was considerably increased; it was increased to such an extent that I advised a tracheotomy at once. He had considerable dismea and almost complete stenosis. He would not submit to operation, so I told him that I could not continue to treat him if he would not follow my directions. He died some six or eight months later.

Case 2. Female, age 38, married; three healthy children, husband healthy, her family history negative; poor hygienic surroundings. Healthy until one year ago, then she developed a cough and lost weight rapidly; had night-sweats and daily temperature. In about three months was very much improved and gained some weight; did not have night-sweats; no temperature. The cough continued and she began to have pain in the larynx. The pain in the larynx has persisted, and, in fact, has grown more severe in the last month; at times the pain is so severe that she can scarcely swallow. She would like to eat, but will not, because of the intense pain. A decided thickening of the posterior wall with an ulcerating surface was found. This was removed the following day and cauterized by 80% lactic acid. The day after the patient began to eat and has not had a laryngeal symptom since. She gained twenty pounds in four weeks, and from appearances is perfectly well.

Case 3. Male, age 42, clerk by occupation, married, no children, never robust, however was never confined to bed by illness; parents, brothers, sisters and wife healthy. About one year ago had influenza, from which he did not completely recover; it left him emaciated, weak, and with a cough. He had daily temperature; night-sweats occasionally. About six months after his attack of influenza he began to experience pain in the larynx when he coughed; this pain increased gradually for three months until he consulted me. He said that it was so painful for him to swallow that he had not swallowed a thing for five days. Besides this, he had night-sweats, losing weight rapidly. The cough at this time was very persistent, and would prostrate him very much because of the pain induced. Examination—Half of the epiglottis had been destroyed by the tubercular ulceration; otherwise the larynx was reddened. I told the wife what I found, what I proposed to do, and what would happen. They insisted that I should proceed at once, which I did, removing the ulcerating surface of the epiglottis, which included practically the whole of the epiglottis; cauterized with 80% lactic acid. I then gave the patient two glasses of malted milk, which he drank with a relish, saying that he had never tasted anything so good before. In a few days he was taking semi-solid food. In the course of a week he was taking solid food. He began to have some pain about ten days after the primary operation. On very careful examination I discovered a few points of granulation tissue in my former field of operation. They were removed, and their surfaces cauterized by lactic acid. The only annoying symptom that this patient had after the primary operation was the accumulation of mucus in or about the larynx. This was relieved by an alkaline spray. The patient lived sixty days from the time of the first operation. So far as his larynx is concerned, he was perfectly free from all laryngeal symptoms, which no doubt contributed much to the comfort of his remaining days.

Fraud at Medical Examinations.

The Maine board of examiners desires attention to the fact that fraud in taking examinations before state licensing boards is a danger which must not be overlooked. At a recent examination, according to a newspaper clipping sent to the JOURNAL, a certain Dr. Houghton Baxley, of Baltimore, appeared in the place of a man named O'Malley. The fraud was detected and both were arrested. The outcome we do not know. In the report of the West Virginia board for 1903 and 1904, is recounted a similar case, wherein a Dr. Thos. H. Magnus, a professor in the Baltimore University School, appeared for a second course student by the name of David R. Shepler. He was arrested and placed in jail; later he secured bonds in the sum of $500.00 and subsequently jumped his bail and left for parts unknown.

PARTIAL REDUCTION IN DISLOCATIONS OF THE SHOULDER.

By RAYMOND RUSS, M. D., San Francisco.

WHILE partial dislocation of the humerus, as described by Sir Astley Cooper[1], seems a possibility, its existence has been denied by some. Personally I see no reason why such a condition should not exist, for there may be a cessation of the force which has caused the accident when the head of the bone has but partly rent its way through the capsule. We can safely say that it is a rare lesion and the cases which have been reported may be the result of faulty observation; but the same condition as the result of partial or incomplete reduction, which is far more serious because it means so much for the welfare of the patient, is not uncommon.

During the past winter 3 cases of partially reduced shoulder dislocations have presented themselves at my surgical dispensary service in the University of California. These were in men from 38 to 60 years of age who had been treated by different practitioners for forward dislocations at periods of 5 days to 5 weeks before coming to the dispensary. They all complained of limitation of motion and pain upon movements of the affected shoulder.

The head of the bone was in each instance partially within the glenoid cavity. In two the deformity of the injured shoulder was so slight as to be noticed only by careful inspection. As this type of case is important the histories are given in detail. To these I add a fourth case which seems to have been originally a good example of partial dislocation. As I did not see the patient, however, until nearly two months after the accident I cannot be certain upon this point.

Case 1. O. L., a carpenter aged 60 years, had fallen on the right shoulder causing a forward dislocation, 10 days before presenting himself to me. He had received medical attention immediately after the accident. He complained of great pain on all movements involving the shoulder joint. It was found that the position of the arm and forearm was good, the acromio-external-condylar measurements were the same on both sides and there was no swelling about the injured shoulder. There was slight hulging on the affected side, the head of the hone seeming to press forward in its socket. This was brought out by careful comparison with the other shoulder and shown by the increased rotundity of the deltoid upon the injured side when the arms were abducted to a right angle. Reduction was accomplished by means of the Kocher method and a plaster-of-Paris dressing applied. Massage and passive motion were commenced 7 days later and the patient discharged in the third week with full restoration of function.

Case 2. M. K., a laborer aged 38 years, fell down stairs 5 days before coming to the clinic and received a forward dislocation of the left shoulder. An anesthetic had been given and reduction undertaken soon after the injury. He complained of pain on the slightest motion and numbness in his fingers. Flexion was limited to about three-fourths normal amount. Abduction was impossible, but adduction was fairly good. There was slight inward rotation and supination was accomplished with great difficulty. Paralysis of the deltoid was present. The head of the humerus was a finger's breadth below the acromion process and rested upon the edge of the glenoid cavity. Acromio-external-condylar measurement on affected side was 35 cm., while the same measurement upon the opposite side was 34 cm. The patient was given an anesthetic and after several attempts complete reduction was accomplished by Kocher's method and a plaster of Paris bandage applied. Two days later the muscles had somewhat regained their tone and the head of the bone was much nearer the tip of the acromion process. The hand could now be easily lifted to the forehead. The plaster-of-Paris bandage was reapplied and the further progress of the case was without incident. The patient was discharged 10 days later.

Case 3. D. H., aged 50 years, fell on the upper and outer third of the right humerus, sustaining a dislocation, 5 weeks before presenting himself at the clinic. He had received surgical treatment after the injury. I found no limitation of adduction, but abduction was limited to 70°. There was no difference in the acromio-external-condylar measurements. On inspection the muscles of the right arm were found to be somewhat atrophied from disuse. The rotundity of the deltoid was lost and the head of the bone was found to rest somewhat anteriorly in

the glenoid cavity, so that the point of the shoulder on close examination was seen to be slightly more prominent than the other. The patient was given an anesthetic and complete reduction accomplished by means of the Kocher method. The arm was then bandaged securely to the side. This patient was subsequently lost track of and it has been impossible to trace him.

Case 4. O. A., a muscular German, aged 52 years, while intoxicated on the night of Thanksgiving day, was jostled and fell to the sidewalk, striking on the left elbow and shoulder. Next morning he had considerable difficulty in putting on his clothes. Since then the right shoulder joint has been painful, but the patient has been able to move his arm fairly well. When he presented himself at the clinic on January 20th there was great pain on attempting to abduct the humerus above a right angle. The head on the affected side was prominent; there was bulging of the muscles in front and a corresponding depression behind. The parts about the shoulder were not swollen. There was slight atrophy of the deltoid. On palpation the head of the bone was found to rest anteriorly upon the edge of the glenoid cavity. The patient was certain that it had not changed its position since the original injury. An anesthetic was given and forcible motions in all directions, as recommended by Castu[2] were made with a view to breaking up adhesions. I then tried for a half hour to accomplish reduction by Kocher's and other methods, but failed.

The patient again reported 3 days later and I was surprised to find that he had full range of motion on the affected side. He stated that the day after the attempts at reduction were made he suddenly lifted his arm and felt the head of the bone return into its socket. The point of the shoulder, however, was still somewhat prominent and reduction was not complete. The case was referred to Professor Harry M. Sherman, who advised massage and light exercise. The patient was seen by me on July 19th. He had been very systematic in his massage and his exercises with light dumbbells. He had full range of motion and he stated the joint was much stronger. There was marked crepitition on strong abduction. The humerus was still slightly in advance of its normal position. All movements below height of shoulder gave no pain; movements above height of shoulder gave pain if long continued.

A case of Mercer s[3] somewhat resembles this and an abstract of it is here quoted. Mrs. B., aged 56 years, was thrown from her carriage 7 years before, dislocating her right shoulder. The shoulder was reduced shortly after the accident. When seen by Mercer motion was limited and she could not raise her elbow from her side more than half way to a horizontal position without assistance. Measurement showed no appreciable difference in the size or length of the arm or the size of the shoulder, but the point of the shoulder was prominent in front and flattened behind. "I examined the shoulder in November last and it presented the same general appearance. Some 6 weeks previous to this examination, in a sudden and thoughtless effort to raise the arm above the head, the muscles unexpectedly obeyed the will. Since which time she has had perfect use of it, though the deformity still remains. She thinks she felt or heard a snap when the arm went up, but it was followed by no pain, soreness or swelling.

It will thus be seen that complete reduction was accomplished in 3 cases after the limb had been partially reduced by others. It would not be just to say that the incomplete reductions were the fault of the surgeons who first treated the cases, or that the subsequent successes were due to greater sagacity on our part. "At this latter period," writes Sir Astley Cooper[4], "if we detect a dislocation which has been overlooked it is our duty in candor to state to the patient that the difficulty in detecting the nature of the accident is exceedingly diminished by the cessation of inflammation and the absence of tumefaction."

I believe that partial reduction is often overlooked and that it is the greatest cause of the bad results which now and then follow upon uncomplicated shoulder dislocations. Boyer[5] early made the statement that "anchylosis is never the consequence of luxations of the humerus when they are reduced. The motion of the arm, first impeded by the pain, becomes daily more free and is soon performed with as much facility as before the luxation had taken place."

The most common impediment to complete reduction is probably the interposition of a portion of the capsule. The presence of new tissue in the glenoid cavity is not to be thought of in connection with the cases cited, unless possibly with case 4. Other causes which may enter into the problem are the interposition of the tendon of the biceps and rarely that of the subscapularis. Hamilton[6], in commenting on the case of Mercer, believes that this deformity was due to displacement of the long head of the biceps.

It can hardly be claimed that the cases which I have cited were the result of reluxation, an accident which occasionally happens. The reluxations which I have seen have been complete and I can find no reference to partial reluxations in the literature.

REFERENCES.

1. Cooper—Dislocations and Fractures, 3d Lond. Ed., 1824.
2. Castu, M. And.—*Revue de Chirurgie*, Oct. 10, 1888.
3. Mercer—*Buffalo Medical Journal*, April, 1859.
4. Loc. cit.
5. Boyer—Diseases of the Bones, 1805.
6. Hamilton—Fractures and Dislocations.

Note. Since the above was written I have met with one instance of undoubted partial dislocation.

A. J., a muscular man of 40 years, fell on his left shoulder two days before presenting himself at the clinic. When seen by me there was no ecchymosis but it was impossible for him to abduct the arm but a slight distance from the side, and this was accompanied with great pain. On careful palpation the head of the humerus was found to rest slightly forward in the glenoid cavity. The rotundity of the deltoid was slightly less upon the affected side. Reduction was accomplished by the Kocher method, and the patient was able, before he left the clinic, to abduct the arm to its full extent. This was accompanied by slight pain; two days later the movements were normal and without pain.

The California Board of Medical Examiners.

One of the periodical outbursts against the California State Board of Medical Examiners has recently taken place at Los Angeles. A physician who lost two sons in a battle with the board threatens suit on the ground that his boys were "plucked" through malice against the College of Physicians and Surgeons, from which they were graduated in June. It is charged that the president of the board shows a dislike for the name of this institution, and has expressed a determination to prevent any graduate of the College of Physicians and Surgeons of either Los Angeles or San Francisco from receiving a license to practice, though he had to sacrifice other candidates to do so. Another physician charges unfairness, and calls the president a trickster, supporting the charge with several specifications, but this physician also has felt a wound, for he himself failed to pass the examination in bacteriology before the board. Several of the most prominent members of the Los Angeles profession have come to the rescue of the president of the board in just as emphatic language as that used by the disgruntled ones. It must be admitted that the standard set by the California board is a high one, but it should be maintained, for the state is a Mecca of the quacks of Christendom. A review of the questions submitted at any examination shows that they are selected in every branch with remarkable skill, both with a view to fairness and as a test of the knowledge of the applicant. Unfortunately, the president of the board is said to have made a custom of submitting two questions* at the close of each test which are particularly obnoxious to even the best bacteriologists, one requiring the diagnosis of a culture tube, the other the naming of a stained specimen of bacteria, without any information as to the preparation of either, each question counting ten per cent in the final average. Possibly he has been indiscreet in some of his remarks, but the evidence against him comes from unfortunate candidates, many of whom prove themselves incapable of answering the simplest questions in almost any branch.—*Medical Record*, Jan. 13, 1906.

*This we are advised, has been discontinued.

THE SPIROCHETA PALLIDA.* (TREPONEMA PALLIDA.)

By L. S. SCHMITT, M. D., San Francisco.

THE number of organisms to which syphilis has been attributed can be reckoned by the score. Each has held the center of the stage for a time, only to be relegated to the realms of conjecture. Lately, however, one has been attracting the attention of the medical profession which gives greater promise of maintaining a firmer hold on its position than the majority of its predecessors.

In March of 1905 F. Schaudinn and E. Hoffman[1] described an organism which they found in twenty-six cases of primary and secondary syphilitic lesions, viz., in glands, chancres and flat condylomas. Some three years prior, however, Bordet and Gengou[2] observed in a number of primary lesions what is now known as the *spirocheta pallida*, but as their findings were not constant, they did not continue their investigations.

Since the preliminary report of Schaudinn and Hoffman was published many independent investigators have reported confirmatory findings, while but a few report either negative results or the presence of the spirocheta pallida in non-syphilitic lesions.

Hoffman, in a later communication[3], regards the latter as due to faulty technic. Schaudinn, in a second communication[4], states that he found the organism in the deeper parts of chancres, in glands, in the splenic blood and in an errosion of the penis nine years after the primary. After diligent search he was unable to demonstrate the parasite in buboes following soft chancres or in carcinomatous or tuberculous tissue. Hoffman[5] obtained positive results, post-mortem, from an infant with congenital lues. These were obtained from the liver, spleen, inguinal glands and fluid from a bulla. He was unable to find the spirocheta pallida in three cases of carcinoma, although the spirocheta refringens was found.

These results have been confirmed by many different observers.

Richards and Hunt[6] report that they were present in three cases in the blood taken from roseolæ, as well as in the primary sore. Gordon[7] failed to find the spirocheta in the cerebro-spinal fluid from eight cases with nerve lesions and two cases of recent origin. C. Frankel[8] reports confirmatory findings in six luetics, but also found the organism in non-syphilitic lesions. Bandi and Simonelli[9] claim to have found the spirocheta pallida in the neuclei of large degenerated cells in the deep skin. They add that this corresponds to a similar condition found in tuberculosis, leprosy and glanders. Rosenberger[10] reports thirty-four cases with positive results from ten chancres, eleven mucous patches, four enlarged glands, three condylomas and six skin eruptions. Negative results were obtained from examinations of cerebro-spinal fluid, and also in the control cases which included chancroids, eczema, psoriasis, balanitis, non-syphilitic glands, the bone-marrow, spleen and liver of a child supposed to have died from congenital syphilis, serum from blisters in healthy subjects, scarlet fever and ulcer of the tongue. Negative results were obtained from two ulcers of hereditary syphilis and from the blood of syphilitic patients. Levaditi and Pautressco[11] found the organism in blisters over secondary skin lesions, but not in blisters raised over sound skin nor over tertiary lesions. They let the blisters remain for eight hours or more. Flexner[12] did not find the parasite in fluid, obtained after blistering with ammonia for a short time. He believes that the blistering should be by some agency acting for a longer time. Siebeit[13] states that the organism does not pass through a porcelain filter. Schaudinn, in a later article[14], states that by the use of Loeffler's mordant stain he has been able to make out a flagellum at one or both ends of the spirocheta, and in one instance noted two flagella at one end. He does not think that there is an undulating membrane, as originally reported. On this account he suggested the name spironema pallida. Later he proposes the name *treponema pallida*. Vuillemin [15] makes the same suggestion, and adds that further investigation will prove the organism to a protozoa. E. Hoffman[16] reports positive results in over three hundred cases of lues and negative results in all non-specific cases. Metchnikoff and Roux[17] found the spirocheta in the primary lesion of four out of six apes which had been inoculated with syphilitic material in which the spirocheta had previously been found. Babes and Panea[18] report positive results in two out of three children with congenital lues. Greater numbers were found in the more marked lesions. In the positive cases it was demonstrated in the blood, mucous membrane, bone-marrow, thymus gland, conjunctival secretion, arachnoid fluid, lymph glands, liver, spleen, kidneys and adrenals.

McWeeny[19], Taylor and Ballenger[20], Rille[21], Bunch[22], Fanoni[23], Jansen [24] report confirmatory findings.

Hirxheimer and Hubner [25] found the micro-organism in 14 cases of primary and secondary syphilis but did not find it in the blood. They were the first to find the spirocheta in sections of syphilitic tissue.

Burnet and Vincent[26] report that by making sections of a chancre of 5 days' duration and staining by Levaditi's method (which will be described below), they found that the parasites were rare in the center of the chancre and numerous in the papillæ and connective tissue fibres in the zone of infiltration.

Delamar and Tanasesco[27] found the spirocheta pallida in conjunction with bacillus fusiformis in a chancre and suggest that this explains the phagedenic character of the primary lesion. Hoffman[28] finds the same association. Some of the bacilli resembled spirals, suggesting that they might be developmental forms of the spirocheta.

Levy-Bing[29] believes treatment with mercury causes a rapid disappearance of the spirocheta, while Rille and Vockerodt[30] assert that treatment has no effect on the organisms. Veillon and Girard[31] found the spirocheta pallida in sections of syphilitic roseolæ of four days' duration. The sections showed intense capillary congestion and beginning perivascular infiltration. The organisms were found in the terminal papillary capillaries and in some of the sub-papillary vessels, a few were found in the perivascular nodules. From this can be adduced that the reseolæ are not of toxic origin, that they are due to a true parasitic embolus lodged in the terminal capillaries of the skin and producing a perivascular infiltration. Ferre[32] reports finding the spirocheta pallida in smears made from superficial tertiary

*Read in part before the Medical Alumni, University of California.

1 Arbeiten aus dem Kaiserlichen Gesundheitsamte Berlin, April 10, 1905, Hft. 2, p. 527.
2 Soc. Roy. des Sci. Med. et Nat. de Brux, 1905, LXIII, p. 124.
3 Berlin Klin. Woch., XLII, No. 27.
4 " " " May 29, 1905.
5 " " " XLII, No. 23.
6 Lancet, Sept. 10 1905.
7 Presse Med. 1905, No. 42, p. 340.
8 Munch. Med. Woch., 1905, No. 24.
9 " " " " No. 35.
10 Am. Jour. Med. Sci., Jan. 1906.
11 Presse Med. No. 78.
12 Med. News, Dec. 9, 1905.
13 Deutsch. Med. Woch., XXXI, No. 41.
14 " " " XXXI, No. 42.
15 Compt. rend. de L'Acad. des Sci., June 1905, No. 23, p. 1567.
16 Deutsch. Med. Woch., XXXI, No. 43.
17 Bull. de L'Acad. de Med., May 1905, p. 468.
18 Berlin Klin. Woch., 1905, No. 28.
19 Brit. Med. Journ., June 10, 1905.
20 Journ. A. M. A., Nov. 11, 1905.
21 Munch. Med. Woch., 1905, No. 29.
22 Brit. Jour. of Derm., Nov. 1905.
23 Med. News, Oct. 7, 1905.
24 Hospitastidende Copenhagen XLVIII, No. 26.
25 Deutsch. Med. Woch., 1905, No. 26.
26 Compt. rend. de la Soc. de Biol., Nov. 24, 1905, p. 474.
27 Presse Med., July 5, 1905.
28 Berlin Klin. Woch., July 10, 1905.
29 Le Bull. Med., July 12, 1905.
30 Munch. Med. Woch., Aug. 29, 1905.
31 Compt. rend. de la Soc. de Biol., Dec. 22, 1905.
32 " " " " Jan. 19, 1906, p. 97.

lesions. This is contrary to the findings of many observers who report negative results in tertiary lesions and shows the doubtful value of smears in investigating this subject.

The investigations of Levaditi—assistant to Metchnikoff at the Pasteur Institute—are important. His investigations have been made by examinations of sections rather than smears. In conjunction with Salmon[33] he found the micro-organisms in the hepatic, supra-renal, bronchial epithelial pulmonic endothelial cells and sweat-glands of a baby, with hereditary lues, 16 hours after death. In the liver the spirochetæ were abundant around the intra-lobular venules, from which point they radiated into the hepatic cells and intracellular spaces. (See cut.) None were found in the vessels but some were present in the endothelial walls of the vessels and in the perivascular tissue. In the lungs many were found, along the pulmonary capillaries, and in the perivascular lymph spaces; also in the epithelial cells lining the bronchial tubes and in the alveoli. In the skin the organism was found in the sweat-glands and in large numbers in some pemphigoid bullæ. Levaditi suggests that if the organisms are present in the bronchial epithelium and in the alveoli that they may be present in the sputum of certain syphilitics. He also states that the perivascular distribution of the organism in the liver points towards its distribution by the vascular system.

The virulence of the form of syphilis in this child can be explained by the number of spirochetæ found in the cellular elements of the viscera. In fact he believes that this form is a true, acute spirillosis.

Levaditi and Manonelian[34] working with sections from six lesions (2 chancres, 3 papules and 1 mucous patch) and with sections from six chancres from monkeys found:

(1) Positive results in 2 chancres and one papule from man and two chancres from apes.

(2) That the spirocheta pallida is the only spiral organism which penetrates deep tissue affected by primary and secondary syphilis, the spirocheta refringens being found on the surface only.

(3) That finding the spirocheta pallida around and in the walls of the blood vessels, explains the presence of peri-arteritis.

(4) That the findings in man and monkeys were similar.

(5) That the organisms were found in a limited area only, explaining the negative results obtained from many smears.

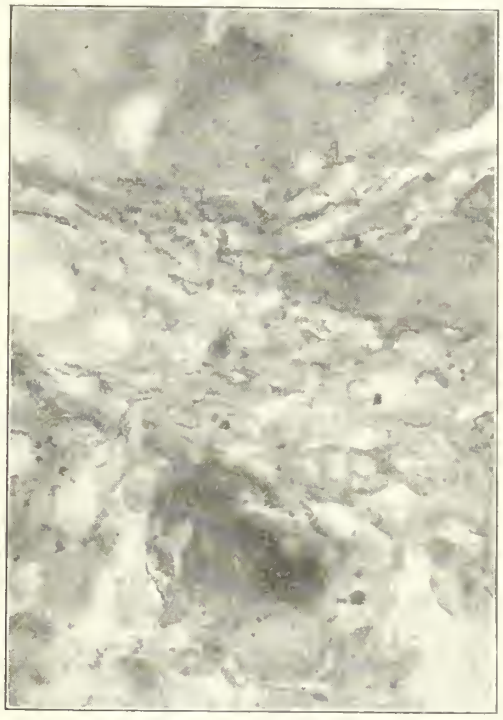
(6) That the absence of the organisms from the indurated area suggests that the perivascular mononuclear infiltration with the resulting sclerosis is a factor in the destruction of the spirochetæ.

This does not include all of the literature on this subject by any means but is intended to point out the direction which the investigations of this subject have taken.

In some instances, as stated by Flexner[12] the expressions of faith in the confirmatory reports, of the spirocheta as an etiological factor in lues, far exceed the public expressions of Schaudinn and Hoffman. In general, however, the majority of investigators report their findings without drawing positive conclusions.

Morphology—The organism has been described morphologically as a cork-screw-like spiral, very small and taking the stains very faintly with the majority of stains. It is from 3 to 15 micra long, the average being about seven micra—that is equal to ½ to 2 diameters of a red blood corpuscle. The width varies greatly from immeasurable thickness to .5 of a micron. The number of curves varied from three to twelve. These curves or twists are fairly regular and deep, the bends being very sharp, almost at an angle at times. They are not wavy as the turns of the ordinary spirillum. We have noticed that these bends are sharper in thinner spirochetæ, and, in general, their amplitude is about twice the width of the organism. The ends taper off to fine thread-like points, usually turned to one side or the other, in the stained specimen. It also appears from the specimens which we have examined that the organisms are longer in the fresher lesions and that the twists are not as close together. This, however, may depend in part on the method of fixation and staining.

Schaudinn in his original article[1] states that the parasite is extremely difficult to see in the fresh state on account of its refractility to light and that it is motile with a rotary motion, forward and backward, accompanied by a bending snake-like movement of the entire body. This suggested to him an undulating membrane. However, in the stained specimens he was unable to make out a membrane, but determined the presence of flagella[14]. Metchnikoff and Roux determined motility in unstained specimens five hours old.



Spirochetæ pallida in a section of liver from a child with hereditary syphilis, made 16 hours after death. Levaditi's stain. 2600X.

With nearly all stains the parasite stains but faintly. The exception is the silver stain noted below. Schaudinn states that their size, delicacy, character of the bends, the tapering ends and their difficult staining reaction, differentiate them from the various other spirochetæ and spirilla, (sp. angina Vincenti, sp. relapsing fever, sp. balanitis circinatis, sp. buccalis, etc.). Accompanying the spirocheta pallida is another organism, found also in non-specific lesions and more often on the surface of primary and secondary, and exclusively throughout tertiary luetic lesions. This is larger, deeper staining, and with longer and a less number of

[33] Compt. rend. de la Soc. de Biol., Nov. 25, 1905, p. 465.
[34] " " " " " " Dec. 1, 1905, pp. 527, 529.
[12] Med. News, Dec. 9, 1905.

[1] Arbeiten aus dem Kaiserlichen Gesundheitsamte Berlin, April 10, 1905, Hft. 2, p. 527.
[14] Deutsch. Med. Woch., XXXI, No. 42.

twists than the spirocheta pallida. The amplitude of the turns is less. It is known as the *spirocheta refringens*. In looking over some of the illustrations in recent text-books and journals, it is evident that this has been taken by some observers as the spirocheta pallida.

Technic.—Some few words can well be said on the methods of obtaining smears and sections. Following the suggestion of Rosenberger[10] we have used a sterile normal salt solution for the purpose of washing off all lesions prior to scraping or incising. We have also used the methods suggested by Flexner[12] for obtaining material, viz:

For ulcerating chancres—Clean the surface and then rub the raw surface with a small platinum loop.

For non-ulcerating chancres—Obtain a drop of juice below the surface by means of a hypodermic syringe.

For mucous patches—Use a double spoon, taking the deeper scrapings. Cocaine can be used as an anesthetic, although we have not found it necessary.

For skin lesions (roseolæ, papules and pustules)—Clean and incise, and express a drop of blood and lymph, using a needle if necessary.

For glands—Aspirate with a large hypodermic needle, using a syringe with strong suction. Spread the material over several parts of a dish and choose the white glandular tissue to make the smears.

All smears should be very thin. Sections however, should not be too thin, as on cross-section some of the organisms are cut through making it hard to identify them.

Smears—Many methods have been tried to stain this organism, among them being the Giemsa method, which is as follows:

Stain.	Azur II—eosin	3.00 grams
	Azur II	.08 "
	Glycerine C. P.	250.00 cc
	Methyl Alcohol C. P.	250.00 cc

This can be obtained all prepared by Grubler:

(1) Fix in air or in osmic acid fumes.

(2) Harden in absolute alcohol for from 25 to 60 minutes and blot with filter paper.

(3) Dilute stain with distilled water 1-10 or 1-15 and cover preparation from 10 to 20 minutes. It is advisable to make the diluting water alkaline by a few drops of .01% solution of carbonated potassium.

(4) Wash with distilled water and then running tap water.

(5) Dry in air and mount in balsam.

This stains the spirochetæ a light pink.

Many modifications of this method have been suggested. Zabolotny fixes in 5% solution of acid carbolic and applies the stain hot for 15 minutes. Schaudinn and Hoffman originally applied the stain for 24 hours. Reitman[35] uses the following method:

(1) Dry in air.

(2) Fix in absolute alcohol 10 minutes.

(3) Wash in distilled water 5 minutes.

(4) Apply 2 % phosphotungstic acid 5 minutes, washing this off with 70% alcohol.

(5) Stain with carbo fuschin heating until steam arises.

(6) Wash alternating in running water and 70% alcohol until no more color comes off.

(7) Dry in air and mount in balsam.

The spirochetæ are stained a light red.

The Oppenheim-Sachs method[35*] is as follows:

Conc. alcoholic solution, of Gentian Violet	10 cc
5% solution acid carbolic	100 cc

(1) Dry in air.

(2) Apply stain and heat until it steams.

(3) Wash in water and dry in air.

The spirochetæ are blue in color. The objection to this method is the great amount of detritus which is stained making it difficult to find the spirochetæ.

Marino[36] uses a mixture of methylene blue and azur as follows:

Methylene blue	0.5 gms.
Azur	0.5 "
Water	100 cc

Add an aqueous solution of sodium carbonate 5% and let stand from 24 to 48 hours at 37° C; add an aqueous solution of eosin. Filter and dissolve 0.04 gms. of the filtrate in 20 c. c. of methyl alcohol C. P.

Make an eosin solution using 0.05 gms. to 1000 cc of water. Apply the methylene blue-azur stain to the smear for three minutes, rocking constantly, then without washing apply 8 to 10 drops of the eosin solution. Let this remain for two minutes, wash in water, dry in air and mount in balsam.

Wrights', Leishman's, May Grumwald's Romanowsky's, Nile blue and a host of other methods have been tried. We have obtained the best results with smears by the Zabolotny modification of Giemsa's method and with Loeffler's mordant. With the former method the spirochetæ are stained quite deeply.

With these stains the smears fade rapidly, especially if a high light is used with the microscope. Mounting in chloroform-balsam does not prevent the fading.

Sections. For the staining of sections the following method which is Levaditi's modification of Ramon y Cajal's stain for nerve fibres is successful:

(1) Place small blocks of tissue in formalin 10%.

(2) Harden in alcohol 95%.

(3) Wash in distilled water for a few minutes.

(4) Stain in 1% solution of silver nitrate in distilled water for 3 days.

(5) Leave tissue in the following mixture for 24 hours:

Acid pyrogallic	4.00
Formalin	5 cc
Distilled water	100 cc

(6) Wash in distilled water, then pass into alcohol, xylol, paraffin, etc., and cut.

(7) Stain sections in *undiluted* Giemsa stain for 3 to 4 minutes.

(8) Differentiate with alcohol and oil of cloves, then wash with alcohol and clear with oil of bergamont. Wash off the oil with xylol and mount in balsam.

By this method the spirochetæ are stained black and are easily discerned as they are swollen by the silver nitrate. The cells are blue and the connective tissue is yellowish green. As already noted the sections should not be too thin.

Bertarelli, Volpino and Bonero[37] used the silver nitrate alone for staining sections. This does not stain the spirochetæ as deeply as the Levaditi method and the large amount of precipitate of the silver salt makes it hard to find the organisms. Petresco[38] proposes the Golgi silver stain for sections. This also is without value on account of the precipitation.

All attempts at cultivation of this organism so far, have failed. Blood tubes smeared with human serum, serum from syphilitics, and pleuritic effusion have been tried without success.

By the above described methods we have been able to demonstrate the spirocheta pallida in smears taken from one extra-genital chancre, two genital chancres, two mucous patches and two lenticular papulo-pustules, all from different patients, and have obtained negative results from one mucous patch, and from soft chancres, lupus and carcinomata. We have also found the spirocheta in sections by means of the Levaditi silver nitrate stain.

I am indebted to Dr. Dudley Tait for many of the references in the accompanying bibliography, also for the stained section which he presented at the U. C. Alumni meeting.

[10] Am. Jour. Med. Sci., Jan. 1906.
[12] Med. News, Dec. 9, 1905.
[35] Deutsch. Med. Woch., 1905, No. 25.
[35*] " " " " No. 29.
[36] Annales de L' Instit. Pasteur, 1905, p. 761.
[37] Revista D' Igiene, 1905, No. 16, p. 561.
[38] Compt. rend. de la Soc. de Biol., Dec. 29, 1905, p. 680.

Repair of Lacerations.

[The following comment is rather in the nature of a discussion of Dr. George B. Somers' recent paper, and at his suggestion we gladly give it space.]

Kindly permit me to express my appreciation of your excellent paper, "Recent Complete Tears of the Perineum," appearing in the February number of the California State Journal of Medicine. Having had 15 years' experience as a general practitioner in the country, before taking up my work in the city, I can fully appreciate the value of your paper.

I am glad to know that you believe that the shoulders do more harm to the perineum than the head. This is a contention that I have made for many years. The old notion seemed to be that the head was the all-important thing in any case of labor. The head was blamed for everything that went wrong in any case where accident occurred. This belief was tacitly accepted by the profession as a whole and settled into a sort of superstition from which it will take years to educate the rank and file, as well as many of the authorities, in the practice of obstetrics. I believe that very few practitioners have ever taken pains to observe just when the perineum gives way, or what causes it to rupture. I have made it a habit to examine the perineum, gently, but carefully, after the head has passed. There is seldom if ever a time when this cannot be done without any inconvenience or detriment to anybody. I have seldom found a perineum ruptured by the head, unless the head had been expelled by a sudden and excessively severe pain, or the dragging of the head through the external parts by the injudicious use of the forceps. Many practitioners wait until the child is delivered, and then hunt for a laceration. If they find one they assume that the head produced it, and will not be told otherwise. The permitting of the head to drop down over the perineum after it has passed and rotation is complete, thus favoring the passage of the upper shoulder, under the public arch, before the lower shoulder has passed the perineum, is responsible for the lower shoulder, or the elbow of the lower arm, plowing right through the perineum. The majority of ruptures, in my experience, have been produced by the shoulder.

I fail to see why the immediate repair of the perineum should be attended by many unsuccessful results, if it is done with any degree of care or skill. My own failures in this condition make less than 2% of all the cases repaired. I have never but once allowed a perineum to go without immediate repair. In that case the condition of the patient would not warrant longer manipulation. Formerly I used silk, as I seldom had other material for sutures. I have had good results with silk. It is true I had some irritation about the stitch holes, and sometimes a small abscess, but on the whole I had very satisfactory results. I believe that much of my success was due to the fact that I attended to the douching and catheterizing, where the latter was necessary, myself. I had no graduate nurses for years in my early experience. I do not mean to argue in favor of silk at this time, for I believe that there are now better materials. I believe that the majority of failures are due to a lack of a deliberate and painstaking repair of the laceration. I believe that solutions of bichloride of mercury are the most pernicious of all solutions ever used. Steril normal salt solution, if used freely and in a cleanly manner, is just as effectual and perfectly safe. A careful removal of all clots that might separate the raw surfaces and a trimming out of any hashed up tissue in which the circulation is undoubtedly destroyed, together with an accurate bringing together of the torn parts, so as to leave no pockets or "dead spaces," will be followed by success in the vast majority of cases, provided the parts are not too much meddled with during the healing process. Apropos of the meddling, I once delivered a primipara by forceps for a young practitioner who happened to be the husband of the patient. The patient was 28 years of age. The husband had undertaken the case himself. He had dosed the patient with about every drug in the list that he had ever heard of to promote dilatation, and also the expulsive character of the pains. After more than 24 hours, and with the head on the perineum for no knowing how long, the patient, worn out with straining, and the pains amounting to nothing, I was called. The laceration was quite extensive, but not complete. It extended to the margin of the anus, though not into the bowel. I sewed it up with a great deal of care. The husband had his head full of puerperal sepsis and began to importune me as to "how often to douche her through the night." I urged him to leave that to me and let me take entire charge of the case, as also did the patient. Imagine my disgust when he calmly informed me the next morning that he "had douched her thoroughly every two hours through the night with a silver male catheter for a douche tip, being sure to work it around in every nook and corner." He had used carbolic acid, and I do not know what else, for the purpose. In spite of his meddling, partial union took place at the bottom of the wound, leaving some support for the perineum. No sepsis occurred and the patient made a very uneventful recovery. However, it was not much to my enjoyment a year or two later to find that I was very seriously blamed because the woman suffered from puerperal eclampsia in her second pregnancy.

I believe that the lack of accuracy in bringing anatomical structures into their normal relation, too much rough scrubbing of the parts with strong antiseptic solutions and too much pulling at the parts to look at them, with too much douching and meddling with them during the healing process, defeat more repairs than anything else.

ETHAN H. SMITH.

Army Medical Corps Examinations.

Preliminary examinations for appointment of Assistant Surgeons in the Army will be held on May 1st and July 31, 1906, at points to be hereafter designated.

Permission to appear for examination can be obtained upon application to the Surgeon General, U. S. Army, Washington, D. C., from whom full information concerning the examination can be procured. The essential requirements to securing an invitation are that the applicant shall be a citizen of the United States, shall be between twenty-two and thirty years of age, a graduate of a medical school legally authorized to confer the degree of doctor of medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training or its equivalent in practice. The examinations will be held concurrently throughout the country at points where boards can be convened. Due consideration will be given to the localities from which applications are received, in order to lessen the traveling expenses of applicants as much as possible.

In order to perfect all necessary arrangements for the examinations of May 1st, applications must be complete and in possession of the Surgeon General on or before April 1st. Early attention is therefore enjoined upon all intended applicants.

There are at present twenty-five vacancies in the Medical Corps of the Army.

In the treatment of intussusception the irrigation method should not be persisted in for too long a period, 48 hours being the maximum limit. The fluid should not be injected under high pressure, the irrigator not being suspended more than one and one-half or two feet above the patient.—*International Journal of Surgery.*

MEDICAL SUPPORT OF NOSTRUMS.*

By SAMUEL HOPKINS ADAMS.

MOST patent medicines take their rise from the medical profession. A physician devises some combination of drugs which he uses with effect, real or imagined, in his practice. Dr. Bunn's mixture acquires a considerable local fame. One day it occurs to the doctor that he can make a good thing of that mixture by selling it beyond the little circle of his immediate practice. So he goes to the United States Patent Office and obtains, not a patent, for that would necessitate his giving out the formula, but trade-mark registration. In the matter of mere trade-mark registration the Patent Office is not interested as to the component parts of the remedy. For all the Government cares, Dr. Bunn's medicine may be composed of nitroglycerine and assafetida, or, more innocently, of ashes and glue. What are you going to call it? is the only question the Patent Office asks. "Bunn's Bowel Balm" says the applicant. Over the records goes an industrious clerk to discover if any previous Bunn has ever entered a claim to a bowel balm, finds none, issues a certificate, and the job is done. Another regular has broken away from the profession into quackery, and another nostrum been launched at the vitals of the public. Such is, in essentials, the origin of Peruna, which is Dr. Hartman's variation of the old-time Beech's Neutralizing Mixture. To be sure, the variation is a wide one now, because when Dr. Hartman came to realize that the really essential thing in his proprietary was its exhilarant quality, he promptly discarded the rest of the drugs (leaving just enough so that he could say they were there), and pinned his faith to cologne spirits and water, with what brilliant results the newspaper advertisements testify most eloquently. Here, by the way, is another great advantage in simply copyrighting a proprietary—one can alter the formula *ad libitum*.

In other cases the physician himself gets no good of his invention. Two drug clerks several years ago heard one physician advise another to try a prescription of mixed acetanilid, caffeine, and bicarbonate of soda in cases of headache. It sounded profitable to the drug clerks. They got together a little capital, organized their business, and put out the mixture under the name of Antikamnia. Now, Antikamnia sounds quite ethical, because it's Greek. It is ethical only in that it contrives to keep its advertising in the medical journals. As a matter of fact, this proprietary began its career on a basis of deception, and it has been consistently and profitably lying ever since. No nostrum in the long list has ever more completely befooled the medical profession. Yet it is the medical profession that supports it, and has now so firmly established it that if ever the support is withdrawn the nostrum can, and undoubtedly will, flare forth in the public prints with all the backing it needs. Consult the newspaper medical-advertising columns and see if you cannot find there to-day several proprietaries which a few years ago were strictly "ethical," then send for their "literature," and you will encounter some interesting reading in the form of testimonials from physicians.

Medical testimonials are very easy to get in the so-called "ethical" field. But they don't seem very impressive when one comes to look into them. * * *

The geographical location of the physicians who lend their names to testimonials is interesting, perhaps even significant. Take Ozomulsion, for instance, which was formerly an "ethical" remedy. Here are some of the typical towns from which its medical support comes: Munice, Ind.; Nunda, N. Y.; Stanley, N. Y.; Marion, Ind.; Woodstock, Va.; Elgin, Ill.; Jackson, Tenn.; Albion, Mich.; Somerset, Ind.; Battle Creek, Mich.; East Syracuse, N. Y.; Kittery, Maine; Elida, Ohio; Bridgeton, N. J.; Morgantown, N. C.; Paris, Texas; Flint, Mich., etc.

Curiously enough it is just this class of places that furnishes the familiar "God-bless-Peruna" letters which appear in the dailies. * * * What these men wrote regarding Ozomulsion is innocent enough in substance, but the harmful feature is that they are helping with their own names and professional influence a fraud. It is a fraud because it advertises unqualifiedly to cure consumption. I don't know whether either of these gentlemen is here to-night, but in their absence or silence I shall assume that neither would wish to support the statement that Ozomulsion cures consumption.

One physician I have met who does support it, though with difficulty. For purposes of identification I will call him Smith, which happens to be his name. He is the consulting physician of the Ozomulsion Company, in a purely ethical capacity, he assures me. It took me 15 minutes of direct and repeated questioning, very much in the nature of a cross-examination, to pin Dr. Smith down to a plain statement of belief that Ozomulsion would cure consumption, and even then he qualified his *credo* with the phrase "in many cases." This was after he had attempted to wiggle away from the point of the interview by saying that "in the early stages of the disease" Ozomulsion would be efficacious, and that it did not "claim to cure consumption." Confronted with the sweeping assertions of the newspaper advertising, he admitted that his ethical employment did not include any supervision of this vital branch, and that he had never even seen the advertisement under discussion. Inferior as is the status of the physicians who hire out to patent-medicine concerns, few of them, so far as my experience goes, will personally support the extravagant claims made by their employers. Even Dr. Hartman, who is a singularly frank and open person outside of his advertising, assured me that Peruna never *cured* any disease. His theory is that the alcohol in the mixture cheers up the patient (which is indubitably the fact), that the advertising claims inspire faith, and that the combination of faith and jag, "trust and bust," to put it broadly, does the business. This theory, I may add, is for private use only, and is not approved by Peruna's advertising manager.

Foreign testimony from men of standing is much easier to obtain than domestic. Why this should be so has puzzled me for some time, but I discovered the reason while investigating that remarkable fake germ-killer, Liquozone. The Liquozone Company announced that it had secured the services of Professor Pouchet of Paris as their scientific representative in France. My first impression was that Professor Pouchet was probably another home-made myth, like the famous German savant, Professor Pauli, whom Liquozone created and subsequently dissipated. Inquiry showed, however, that there really is a Prof. G. Pouchet of Paris, that he holds a responsible position under the government, and that, although not a scientist of the first rank, he stands well professionally. *Collier's* sent its Paris representative to interview Professor Pouchet.

"Have you lent your name to any patent medicine, Professor?" asked the interviewer.

"I? No; I do not do that sort of thing."

"Then the Liquozone Company is using your name without authority?"

"Ah, the Liquozone Company? That matter is in process."

"Then you are doing some work for them, and they are authorized to use your name in America?"

A translation, giving the spirit rather than the letter of the learned professor's next remark, is best couched in a familiar American idiom:

"America! I don't give a damn for America! Nobody knows me in America."

* Abstracted from the *Maryland Medical Journal*.

There, I fancy, we have the attitude of the average foreign specialist toward American patent medicines which pay liberally.

* * *

Indignant disgust is the sentiment aroused in the medical breast by the patent-medicine advertising in the daily papers. Very right. But what about the patent medicines advertised in the medical press? Ah, but that is addressed to the profession alone, you say. Is that a sufficient excuse for extravagant claims, fraudulent exploitation, and direct misstatement of vital facts? I think I can point out all of these in nine-tenths of the reputable medical publications in America. Take the Liquozone advertising, for comparison. Its principal claim—that which makes it ludicrous in the eyes of every intelligent person—is that it destroys germs in the blood, that it is deadly to vegetable matter, harmless to animal, and so eradicates the cause of all germ diseases. Very well. I will now read to you extracts from three advertisements clipped from prominent medical journals:

Zymoticine—"Will prevent microbic proliferation in the blood-streams, and acts as an efficient eliminator of those germs and their toxins which are already present."

Acetozone (this is under a big display head of "Typhoid Fever")—"It is promptly destructive to germ life, yet is harmless to the human organism when taken internally."

Keimol—"A positive germicide and antiseptic. Is efficient when used either externally or internally."

Gentlemen, there are three internal germicides, so-claimed, which seem to my untutored lay mind to be about parallel to Liquozone's demands on one's credulity as far as they go.

Nor is the consumption cure lacking in ethical advertising. "McArthur's Syrup of Hypophosphites" "has proved itself (I am quoting) time and time again to be positively beneficial in this condition in the hands of prominent observers, clinicians, and, what is more, average practicing physicians, hundreds of whom have written us their admiring encomiums in its behalf, *and it is the enthusiastic conviction of many that its effect is truly specific.*"

In criticising this advertisement I would ask only if any one here believes that there is a true specific for tuberculosis. Again, we have a "sure cure for dropsy." "Hygeia Presents Her Latest Discovery," declares the advertisement, and fortifies it with a picture worthy of Swamp Root or Lydia Pinkham. If Anasarcin is in truth a sure cure for dropsy, then the medical profession is delinquent in that there are still uncured cases in every city and town. If not, what does the medical journal which prints this flamboyant half-page think of the profession, that it lends the support of its columns to such a claim?

So much for fraud and exaggeration. Now for dangerous deception. I wish I might have the aid of a stereopticon to show the Antikamnia advertisement which I hold here. Probably most of you are familiar with it, however. A gate is shown, cross-barred with the letters "A. K.," above which a tabloid moon, similarly inscribed, illuminates with its effulgence the legend, "No Pain Beyond This Gate." Below is the inscription, "Pain Finds Relief in Antikamnia Tablets," followed by three lines of direct and comprehensive misstatement:

"Do not depress the heart."

"Do not produce habit."

"Are accurate, safe, sure."

Let us analyze these claims. In the first place, Antikamnia, which depends for its effect upon acetanilid, does depress the heart. Only thus can it produce any result. Second, it does, like all the acetanilid preparations, produce habit if long persisted in. Third, it is anything but accurate, it is never safe, and it is sure only in its heart-depressant tendency, and even then in varying degrees. So we have five direct lies in three lines of print—a triumph of condemnation not excelled by any lay journal advertising known to me.

Does this sort of exploitation fool the physician? Surely it must deceive many or the shrewd advertiser would not waste his money on it. Yet it plainly lies within the power of the profession to put an end to it. To be sure, the medical journal, like every other publication, depends upon its advertising for support, but the advertising depends upon circulation for results. Let medical opinion once make itself emphatically heard upon this point, and even those publications that are directly controlled by the advertising interests, such as the *New York Medical Journal*, for instance, which is published by an advertising agency, will perforce purge themselves of open fraud.

From suggestion to criticism is but a step, and for the moment I am going to assume the privilege of plain speech and point out what seems to me a vital weakness of the medical opposition to patent medicines. **You have not, as a profession, an intelligent idea of the forces which you are fighting.** Since entering upon this field of work I have received from physicians enough fundamental misinformation to keep me in jail for the rest of my natural life on libel charges had I accepted one-tenth of it. To mention a few typical cases: A New York practitioner whose name is a familiar one, probably, to all of you, assured a group of men at a club where I was present that Peruna was loaded with cocaine. I inquired the source of his information, and was told that recent analyses agreed on the fact. There is, of course, no cocaine in Peruna. A St. Louis doctor wrote me that the real Dr. Hartman of Peruna fame was dead, and that the "young man" who had taken his place is an impostor. The present Dr. Hartman isn't any younger than 76. He is the real, original Peruna article, and makes no pretence of being other than he is—a whole-souled, unashamed, honest-spoken old quack. Probably a dozen physicians have spoken to me about the cocaine in Coco-Cola. The cocaine in Coco-Cola is like the snakes in Ireland—there's none there. Two or three men particularly interested in tuberculosis have suggested that I attack Piso's Consumption Cure on the ground that it contains opium. It may be true that the Piso nostrum once contained opium; it doesn't any longer. Unless the old analyses are all false, the formula was changed many years ago.

Such cases as these show how dangerously swift the profession is to jump at conclusions. **You are fighting a very keen and powerful enemy in the patent-medicine man, or rather you are just beginning to fight him, for you have let him take the aggressive thus far. There is little about your profession that he doesn't know. When he misrepresents you he does it shrewdly. There is little about his profession that you do know.** When you misrepresent him you do it unintentionally and clumsily. **Your effective weapon is the truth, and you haven't yet found it.** Through reckless statements you are in danger of forfeiting that public confidence which should be your most potent ally. Find out where the foe is before you strike. Don't hit out with your eyes shut.

Here I may perhaps be pardoned if I say a word regarding the attitude of the magazines which have entered upon this fight. And I cannot begin better than by quoting the words of one of the ablest representatives of the patent-medicine business, Dr. Charles H. Stowell, general manager of the J. C. Ayer Company, which makes Ayer's Pectoral, Ayer's Sarsaparilla, and other nostrums:

"In every line of business but ours the proprietor urges upon the purchaser the closest examination and the most thorough investigation. 'All wool and a yard wide' is a business phrase which every honest merchant is only too glad to employ as his motto. The proprietary-medicine business is about the only business on the face of the earth where the people deliberately engage in a serious game of 'blind man's

bluff,' hoping thereby to catch something which shall prevent a possible break in the family circle.

"But, you say, 'How is it with the medical profession? They never tell anything!' Indeed they do tell, and every prescription proves it. Although the prescription may be written in Latin, or the technical name of the drugs may be given (and for the best of reasons), yet the person who has the prescription can most certainly ascertain the meaning of every term. Of course, we must grant that there are times when it is best for the physician to bide from the patient the nature of the remedy. But we must remember that the doctor deals with the most acute, the most critical, the most desperate of cases. The turn of the hand may mean success or failure. Life itself may depend upon what is done during the next 30 minutes, or even less time than that. This cannot be said of proprietary medicines. Hence the exception noted above only the better proves the rule. Let us give each and every ingredient in our medicines, with the precise amount of said ingredients in a given quantity of the finished product.

"If we use alcohol, let us say so. Honesty and frankness, with intrinsic merit, recently elected a man to the Presidency of these United States, and honesty and frankness will elect into popular and continued favor any genuine, worthy medicine. If all reputable houses would only engage in such an endeavor, we could wipe out forever a great lot of miserable, useless, and even dangerous compounds that are now causing, directly or indirectly, the annual loss of thousands and thousands of lives, to say nothing of the millions of dollars stolen from our honest, hard-working citizens."

All this and more to the same effect Dr. Stowell said in an address at the last meeting of the Proprietary Association of America. Add to it the corollary which the speaker evidently had in mind, that the open truths about the composition of proprietaries would lead to the suppression of the dangerous ones, and we have pretty clearly defined the objective point toward which the lay journal may properly work; not beyond that I believe. A number of correspondents have written me complaining that my view of the issue is too narrow; that the real, fundamental evil lies in the principle of self-medication. This may be true. Personally I do not care to drug myself. But as a journalist I cannot see that my profession is called upon to go into a question so dubious and delicate, even, in a sense, so academic and technical, as that of self-medication. In the broad field of human activity morals, not ethics, are the concern of the higher journalism. If we can help to uncover fraud where it exists, if we can warn against hidden agencies of destruction, there we may strive rightly and properly. But we are not fighting the doctor's battles in this patent-medicine campaign. Nor is there need that we should. Once my profession succeeds in driving the foe into the open the fight is over for us. We may turn our guns upon other strongholds and leave to you the determination of this issue.

There is plenty of work cut out for you gentlemen of the medical profession—those of you who are willing to take a hand in the fight. For the fight is coming, and soon. This spring there will be introduced in many state legislatures a patent-medicine bill looking to an effectual guardianship of the public health. The Proprietary Association of America will fight it with all the power of a daily press held in varying degrees of subserviency, its political agents, by well-practiced methods, will bring enormous pressure to bear. Yet I believe that if the physician will stand behind this bill, not alone as a physician, but as a citizen with a vote and a voice for the betterment of his Commonwealth, a number of other states will follow the lead of North Dakota and so restrict the nostrum business within the bounds of decency and fair dealing that fraud and poison will become unprofitable in those markets. In preparation for the fight, let me urge you again to arm yourselves with such facts in the case as are obtainable. The American Medical Association, through its specially constituted board, is in a fair way to inform you as to the remedies which are advertised to you direct. But you will meet in your practice the open quack nostrums. Why not extend the campaign of enlightenment to them? To inquire into the content of every new proprietary that appears will be expensive, it is true, but it will be decreasingly expensive, because as the field of knowledge broadens the nostrum trade will contract. And is it not worth the endeavor of the combined medical forces of America, working through some adequately equipped committee, to discover and publish the true nature of every quack remedy as soon as its challenge is heralded in the advertising columns of the daily press?

The greatest present hope is in legislation. I should like to see every medical organization in the country appoint a committee on legislation, made up of its most representative members. Then, when the battle is joined in the legislatures, there would be no more of such apathy on the part of your profession as left the supporters of the recent patent-medicine bill in Massachusetts without the backing of so much as one medical delegation. **To-day the Proprietary Association of America is rent with dissensions. Some of its leading spirits have deserted it. There was never before so brilliant an opportunity for the enemies of fraudulent nostrums.** The attack will be launched from many quarters; the forces of quackery will be divided beyond hope of that concentration of influence and intimidation which have heretofore won its victories. This will be no guerilla warfare, but an organized and formidable plan of campaign. **If the medical profession will mobilize its forces and for once speak its mind in the legislative halls, we shall see the effectual crippling of a traffic which takes its cynical profit from suffering and death.**

GASTRIC AND DUODENAL ULCERS WITH REPORT OF CASES.*

By JAMES H. O'CONNOR, M. D., San Francisco.

IN RECENT years gastric and duodenal ulcers have attracted a good deal of attention owing to the brilliant achievements of Robson, Moynihan, Mayo and others in the surgery of the upper abdomen. As a result there exists in the surgical world of to-day a strong tendency to regard many lesions of the duodenum and stomach as purely surgical affections, and I look forward to the time when all cases of duodenal and gastric ulcers which do not readily yield to dietetic measures or which show a tendency to relapse, will be surgically dealt with. Until this gets to be the rule I fear we will not make much progress in combating that very fatal affection, cancer of the stomach, for I believe that a great many cases of this disease have their starting point in an unhealed ulcer of the stomach. In gastro-enterostomy we have a remedy which relieves the symptoms of ulceration completely and permanently and permits of the sound healing of the ulcer. In the words of Moynihan "there is no operation in surgery which gives better results, more complete satisfaction to both the patient and the surgeon, than gastro-enterostomy for chronic ulcer of the stomach." By the time these cases reach the surgeon they are willing to submit to any operative procedure that offers them relief from the torments which they have suffered. They have for months, perhaps years, dreaded the meal hour, for while being compelled to satisfy the pangs of hunger they knew full well what pain and distress they would have to endure before the stomach emptied itself, either by the passing of the food into the intestine, or more frequently by vomiting. Therefore I think that operation is as fully indicated in those cases of chronic indigestion which do not yield to dietetic measures and in which ulceration fre-

*Read by title at the thirty-fifth annual meeting of the State Society, Riverside, April, 1905.

quently exists, as in cases of acute ulcer of the stomach with profuse or repeated hemorrhages or cases of pyloric obstruction, due either to spasm from ulcer near the pylorus or permanent stricture produced by a scar.

In my limited experience operation is just as successful in the former as in the latter, though this is contrary to the generally accepted belief; obstructed pylorous being supposed to furnish the ideal condition in which gastro-enterostomy is such a pronounced success. Good as are the results at the present time of surgical intervention in gastric ulcer, I think more intimate co-operation between the surgeon and physician would lead to still better results, for a great many cases which the surgeon receives for the treatment of ulcer are too far advanced to be benefited by surgical treatment. In my opinion operation should be resorted to at a much earlier period than has heretofore been the custom and always before patients are so far reduced by pain and starvation or the supervention of serious complications that their weakened condition renders any operation a serious matter.

As regards the technic of the operation: My first gastro-enterostomy, performed in May, 1902, was disappointing in its results, for regurgitant vomiting ensued and has continued up to the present time, though to a much less degree than immediately after the operation. In this case a posterior gastro-enterostomy was done with an afferent loop of jejunum of about nine inches. The outcome of this case led me to study closely the mechanics of the operation, with a view of ascertaining the cause of regurgitant vomiting. The conclusion I arrived at was that an afferent loop of jejunum of eight or ten inches was not only unnecessary, but positively harmful, for I believed that it was the accumulation of the hepatic and pancreatic secretions in this dependent loop that produced regurgitant vomiting and it seemed to me that if the jejunum was anastomosed to the lowest portion of the stomach at a point as near as possible to the duodeno jejunal junction that the anastomotic opening would be below the level of any portion of the afferent limb of the jejunum, that drainage would be perfect and consequently there would be no regurgitation of fluid back into the stomach. These ideas were put into execution when the next case presented itself and have been followed out in every instance since with gratifying and unvarying success. Therefore I think that the point of the jejunum which is selected for anastomosis with the stomach is of the utmost importance in the occurrence or non-occurrence of regurgitant vomiting. Where the afferent limb of jejunum is made as short as possible without kinking it where it emerges beneath the ligament of Trietz, regurgitant vomiting will not occur and consequently the additional operation of enteroanastomosis advised for the prevention of this dreaded sequela is entirely unnecessary. In my gastro-enterostomies for non-malignant conditions I have used the suture method exclusively.

Case 1. Mrs. A. R. S., age 32 years, in 1901 began to be troubled with fermentation and considerable distress in the stomach for several hours after taking food. In the fall of that year and in the spring of 1902 she became very bad, would vomit nearly everything she ate, vomitus occasionally consisting of blood; pain in the stomach was so intense that her physician had to prescribe opiates for its relief; lost in weight 40 lbs. in 12 months. She came under my care in April, 1902. Diagnosis—gastric ulcer. Was put to bed and nourished exclusively by nutritive enemas for about two weeks, then rectal feeding was discontinued and peptonized milk given by the mouth. She left for home at the end of the month much improved, was instructed to continue on liquid diet for five or six weeks more, then gradually resume solid food. She returned at the end of two weeks feeling just as bad as when I first saw her. Operation was advised and accepted. On May 25, 1903, a posterior gastro-enterostomy was done, leaving an afferent loop of jejunum about nine inches, long. Regurgitant vomiting followed and has continued up to the present time, though of a much less degree than immediately after operation.

Case 2. Mr. O. D., age 33 years, in 1891 began to be troubled with slight epigastric distress after eating, fermentation of food, and constipation; these conditions continued with occasional periods of relief by dieting, until November, 1901, about which time he was taken with very severe pain in the stomach, which confined him to bed for one week; there was no vomiting, but he felt a good deal of distress in the stomach upon taking food. was under the care of a physician for six weeks, during which time he was unable to work. By rigid dieting his condition gradually improved, but he was always conscious of some distress in stomach after taking food. On November 15, 1902, while riding on a street car, was injured by being struck in the pit of the stomach by shaft of wagon. About four hours after the accident was taken with very severe pain in stomach, felt nauseated, but did not vomit, the pain gradually disappeared and he felt all right the next day. One week later was taken with severe pain after eating and vomited. From this date until he was operated upon he suffered from pain in stomach after eating, which would continue until relieved by vomiting; there was progressive emaciation and he lost in weight 25 lbs. in 5 months. Weight before operation, 116 lbs. On April 18, 1903, posterior gastro-enterostomy was done, opening in the jejunum being about five inches from duodeno jejunal junction. The stomach was greatly dilated and a large mass was found occupying the duodenum, extending from the pylorus to the descending portion. I had some doubts at first about the nature of this tumor, but concluded that it was inflammatory and probably due to the traumatism. Recovery from operation was uneventful with the exception of slight infection in the abdominal incision. He left the hospital about May 1st, weighing 127 lbs., and able to take regular food without any distress whatever. He has enjoyed perfect health since the operation and on February 1, 1905, weighed 165 lbs.

Case 3. Mr. E. S., age 33, has had stomach trouble for the past 8 years; would not be troubled continuously, but would have spells of considerable distress and pain in the stomach after taking food, which would continue until stomach relieved itself by vomiting. By careful dieting he would then go along without any trouble for several months, when some indiscretion in diet would precipitate another attack; in four or five weeks he would be well again and able to resume regular diet. About four years ago patient was seized at night while in bed with sharp stabbing pain in epigastrium, which lasted several hours and then gradually grew less; he did not vomit, but about a week after began to vomit on taking food. This condition continued, with short periods of relief by dieting, until November 18th, when he came under my care complaining of more or less constant pain in the stomach, which at times would be relieved by taking solid food and at other times would be very much aggravated by the same diet; the pain at times was diffused over the whole abdomen, the greatest distress being in the epigastric region; had lost 18 lbs. in weight in two weeks, vomited always after meals and between meals was continuously nauseated, once or twice vomitus was streaked with blood and was usually very foul. A diagnosis of chronic gastric ulceration, with contracted pylorus and dilated stomach was made. The operation of gastro-enterostomy was advised and accepted. Operation was performed on December 8, 1903. On opening the abdomen stomach was found to be considerably dilated and on exploring it toward the pylorus I found the duodenum, just beyond the pylorus, for an area about the size of a fifty-cent piece, firmly adherent to the right lobe of the liver at a point just to the right of the gall bladder; this lobe of the liver was drawn downward and inward, producing several ridges on its surface; the separation of the liver from the duodenum revealed an oval perforation of the latter, large enough to readily admit the index finger. This opening was closed by two layers of interrupted silk sutures, the first embracing all the coats of the intestine, the second only the serous coat. On account of the narrowing of the duodenum and also to better drain the dilated stomach I deemed it wise to perform a gastro-enterostomy. This was done by the posterior method, selecting a point on the jejunum about five inches from the ligament of Trietz. Recovery was uneventful and he left the hospital on January 16th weighing 123 pounds, feeling perfectly well and able, as he expressed it, to eat three square meals a day and digest same without the least discomfort. I saw him again on January 29, 1904, then weighing 130 lbs.; he reported on February 28th, weighing 145 lbs and in perfect health; and again on November 27th, weight 145 lbs. and in perfect health.

Case 4. Mr. J. D. M., age 52 years. For the past two months has had more or less constant pain across upper portion of abdomen, which medication and dieting failed to relieve; the pain is worse at night, there is a loss of appetite and he has been gradually losing weight. Dietetic measures were tried for three weeks without any relief of the pain; operation was then advised and accepted. On June 11, 1904, exploratory incision revealed evidences of duodenal ulceration; a posterior gastro-enterostomy was done, leaving an afferent limb of jejunum about four and one-half inches long, or just long enough to reach the opening in the stomach without undue tention; recovery was uneventful. Patient left hospital on August 1st, his appetite was good, he was gaining in weight and entirely

free from pain. Reported on September 15th, feeling very well and steadily gaining in weight; had no return of the pain.

Case 5. Mr. W. J. C., age 30 years. For the past 2 years he has suffered from pain and distress in the stomach after eating, associated with fermentation and progressive loss of weight and strength; lost 25 pounds in a year and a half; pain comes on immediately after eating; there has been no nausea or vomiting, bowels quite constipated; present weight 126 pounds.. Diagnosis of chronic gastric ulceration made. Operation advised and accepted. On September 29, 1904, posterior gastro-enterostomy was done, site of opening of jejunum being about four and a half inches from duodeno-jejunal junction. Recovery was uneventful. He left the hospital on November 2d, feeling very well and able to eat and digest regular food without any discomfort; weight 133 pounds, reported December 29th, feeling very well, appetite and digestion good. Weight has increased to 156 pounds. On March 19, 1905, condition as reported December 29th.

Case 6. Miss S., age 30 years. For the past eight years has had considerable trouble with her stomach; in October, 1897, had, what she termed, a severe bilious attack; was nauseated; vomited for several days; her physician put her on a liquid diet for one month, at the end of which time she was allowed to take selected solid food. From this time until 1900 she had several such attacks. In August of that year had an especially severe one, attended with nausea, vomiting, epigastric distress, swelling and ulceration of the mucous membrane of mouth, being especially severe on the gums and tongue; breath was very offensive. In November of the same year had a similar attack. She came under my care in February, 1901, suffering from one of those attacks. I thought at first it was caused by mercurial salivation, for the symptoms were identical; saliva was drooling from the mouth; the gums were swollen and ulcerated; tongue heavily coated and covered with ulcers; breath foul; had epigastric pain; was nauseated and could not retain any food for several days. As she had taken no mercurial preparations whatever, in fact had not taken any medicine for some time previous, I was compelled to attribute the trouble to a chronic catarrhal condition of the stomach. After the attack passed away I advised her to consult a dentist, which she did; he stated that her teeth were sound and no local condition present to account for her trouble. During 1901 she had several attacks as described above, about one in every four or six weeks, lasting from ten to fourteen days. In 1902, in addition to dietetic treatment, gastric lavage was resorted to, the stomach being washed out every day for two months, then two or three times a week for one year; very little benefit resulted from this, the attacks recurring about every two months, and being just as severe. Various drugs were tried without effect; conditions remained unchanged up to January 19, 1905, when a posterior gastro-enterostomy was done. A number of cicatricies were seen on the stomach near the pylorus. Recovery was uneventful. She left the hospital on February 11th, feeling well, had a good appetite, was gaining weight and took solid food with impunity for the first time in four or five years. On March 13th, reported steadily gaining weight and strength, had gained 10 pounds since she left the hospital, appetite is good and she feels well.

CONTAMINATION OF WATER SUPPLIES.*

By N. K. FOSTER, M. D., Sacramento.

THE value of a pure water supply for domestic purposes has been appreciated since the earliest advent of civilization, and it is doubtful if it was not prized more highly several hundred years ago than it is today. Cities sprang up and grew to a large size where pure water was plenty, and if, for other causes, they were forced into existence where it was not, no amount of money or effort was considered too great to bring it to their doors. The great aqueducts of Rome are familiar to all. Before the Christian Era, 160 miles of these aqueducts had been built and in the next 300 years, 210 more had been added. This aggregate of 370 miles, composed of separate aqueducts, ranging from 2 to 61 miles in length, brought a supply of over 332,000,000 gallons per day of pure mountain water to that city. This is but one of the many ancient water works which in vastness puts to shame the systems of today.

The ancients fully understood the value of pure water and the danger of using that which was polluted, and while knowing nothing of the germ theory of disease, had recognized the fact that impure water was a cause and had adopted many of our so-called modern methods of avoiding it. Hippocrates, 400 years before Christ, advised boiling and filtering water as a protection against disease.

It would seem useless to speak of the necessity of pure water were it not for the frequency with which we hear so-called leaders in social and political affairs speak slightingly of any effort to better the conditions of the domestic water supply. This is sometimes through ignorance, but more often through the fear that anything said against their water will hurt their locality. They will argue that a water, filled with mud known to contain the sewage of large towns, is pure and healthful, on the ground that they have drank it for years. They deprecate exceedingly any effort to improve it from the foolish fear that some competing town will know they have a poor supply. They little appreciate the story that their death list tells, or the power of observation of their neighbors. The cost is often, and perhaps more frequently than any other, the excuse for the use of polluted water, but as an investment, entirely outside the sanitary aspect, a city can make no better than in pure water. It is the progressive city—the city that considers no effort too severe, no expense too great to get pure water—that grows.

Water is essential to life. More than 50% of the weight of the human body is water, and it enters more largely into the composition of food than any other constituent. The health, growth, and very existence of the individual depends upon its character, and as the well being of the community is the object of government, it is their duty to provide a pure supply.

Hill, in "Public Water Supplies," says: "The pumping of water for domestic purposes from a source known to be polluted by sewage or otherwise should be entirely condemned. The delivery of water containing the elements of fatal disease to a confiding and helpless community should be ranked with the sale of intoxicating liquors to minors and confirmed inebriates. An attempt to kill people by the systematic distribution of a poison would be met by the apprehension and punishment of the offender; while the delivery of water for drinking, and other dietetic uses, as fatal to some as a dose of strychnine, is going on in nearly every large city of the land. Shall we shut our eyes to the fact that polluted water is dangerous to health, or shall we recognize the evil, and address ourselves to its remedy?"

The people are awakening to the danger and demanding of their governments the protection due them, but the awakening is often the result of a severe epidemic which has cost much suffering and many lives. That California, full of sparkling mountain streams fed from pure snow and springs, is giving to many of her people this same water, filled with the filth of human excreta, needs but a trip of observation to prove. It might be well to recount the experience of a recent trip of inspection. Along one stream furnishing water for domestic purposes to probably 40,000 people, there are during the summer months, when the water is low, no less than 10,000 people using that stream as a sewer. There are many summer resorts where invalids and those recovering from acute diseases, including those that are water borne, pouring their unpurified filth, loaded as it is with disease germs, into that stream, often not many rods above where another resort takes the water for domestic purposes, to again turn it back with increased pollution, for those below.

In one place where the County Health Officer was making an earnest effort to have a new town clean up and adopt a system of sewage disposal other than the river, I saw what impressed me deeply with the need of education along sanitary lines. The order had gone out from the Health Officer to clean up, and it was being obeyed with a reasonable amount of good cheer. I walked down the stream with the Health Officer and Constable to see the chance for

* Read at the meeting of the California Public Health Association, San Francisco, October 28, 1905

locating a septoc tank when we came upon a man unloading manure from a two-horse wagon in the middle of the stream. This was but a short distance above the water intake of a large town, and there is a great probability that the man did not know that he was doing anything wrong. There are innumerable private camps along this stream, each one adding more to the pollution of the stream than a half dozen families living along its banks. Is it any wonder that typhoid prevails throughout that valley?

This stream is no exception; others are equally bad or worse, and the time is fast coming when with the rapid growth which California is bound to have, our streams will become what they are in many other States, mere sewers, and it will be said of our streams as M. O. Leighton says in his report to the Department of the Interior on "Normal and Polluted Waters in the Northeastern States":

"The Blackstone is the most polluted river in New England; its name has become synonymous with filth. The headwaters of a river system are usually free from pollution, but in this case the opposite is true. The sewage from the city of Worcester befouls the river almost at its source, and thereafter throughout its whole extent the Blackstone is a damaged resource to the country. Such is the accumulation of filth in the mill ponds that from some of those near Worcester there arise odors that are detrimental to comfort and realty, if not to health. The use of its water in boilers has long been abandoned, and it cannot be used in the manufacture of light-colored cloths."

Such pollution besides being a menace to health, will finally destroy the valuable fishing industries of our largest river. Thousands of pounds of salmon are now caught in our rivers, but when they become, as has the Blackstone—a sewer—the fish will disappear and go to those who exercise better judgment and business ability. This is of small account when compared with the loss of life and health, but it is the financial loss that more quickly awakens the people.

The sources of pollution are many, but they may be divided, for our convenience into unavoidable and avoidable. Fortunately most of them belong to the second class. During the rainy season there is a vast amount of water washed into the streams from the adjoining hills and pastures, much of which is bad, but the dry, hot weather and bright sun, both of which are excellent germicides, have killed the greater part of the disease germs.

The larger rivers are used for navigation and are subject to the pollution incident to it, but this is of small moment and can be cared for by filtration, and no city having due regard for the welfare of its inhabitants will use the water from such rivers, without its being filtered.

The causes of pollution in which we are most interested as sanitarians, are the avoidable, and which are at the same time, the most dangerous to health. Chief among these is the sewage of towns. The custom has grown up, and is almost universal in this State, to empty all sewage into the nearest water course. This is in violation of the riparian rights of owners through whose land the water flows, and if such streams are used for domestic supplies, is in violation of State laws. Not only is it a violation of law, it is the direct cause of much sickness and death. Cholera, that great epidemic scourge which has swept millions off the earth, is still active and travelling down polluted rivers in other countries. What might be the result if a case should get into our State at the headwaters of one of our great rivers which furnishes water for thousands of the inhabitants?

Typhoid, that other water borne curse, while not cutting such a wide swath as cholera, keeps mowing, and during the run of years kills more. This is on almost every stream in the State and the death rate, if properly collected, would be appalling. There are other ways of disposing of the sewage, and the practice should be stopped. Corrals for domestic animals are often built upon the bank of a convenient stream and stables are extended over it, so as to easily dispose of the refuse. This, like polluting the streams with sewage, is in violation of the law. The carcasses of domestic animals which have died of contagious diseases, such as glanders and anthrax, are often thrown into the stream. Another and perhaps as dangerous a source of pollution is the summer camper. Camping is a healthful way of spending the summer months, and should be encouraged, but not allowed where it will endanger the lives of others. Being transient, with no accommodations to dispose of waste material, it goes into the stream. The same stream serves for a bath and place to soak and wash the soiled clothing. Indeed, everything goes to this convenient place of disposal. Water companies owning their water shed rightfully reject them, and there should be State regulations governing the conditions under which it is allowed. There are many places where camping could be enjoyed unrestricted, and where no damage could possibly result, but the State has a right, and it is its duty to see that campers do not endanger others.

I have spoken so far of streams, but it applies with even greater force to lakes and artificial reservoirs, for they are filled from streams and the accumulations of filth make them very offensive, to use no harsher term.

There is another great water supply which needs perhaps more care than artificial reservoirs or streams. I refer to the wells throughout the State. These are dug or driven generally with sole reference to the ease of the housewife. This is a commendable purpose, if, as a result a worse evil is not encountered. If we examine the premises closely we too often find the privy has been built with the same idea, and is but a few feet or yards away. Almost invariably the vault is a simple hole dug in the ground and is seldom cleaned. The soil for many feet becomes impregnated with filth, and during the rainy season it easily finds access to the well. The discharge from the kitchen sink and the washings from the pig styes and cattle corrals not infrequently find entrance to the well and add their wealth of pollution. The water is generally pumped to a tank above, which is merely covered with a roof and is exposed to the contaminating influence of dust, which may contain disease germs and certainly does filth, to birds who roost upon the edge and not infrequently are drowned in the water, to flies and other insects which may have upon them the germ of water borne disease, or even the venturesome cat may end her career in its filthy depths. No wonder that typhoid is a country disease and that diarrheal troubles exist.

I have thus briefly and imperfectly gone over a few of the sources of pollution, by no means completing the list, but hoping that it will at least call out discussion.

Gonorrhea as a Cause of Death.

Joseph Taber Johnson, Washington, D. C., (*Journal A. M. A.*, March 11), reviews the opinions of authorities as to the effects of gonorrhea in producing female sterility and disease, and states his belief that if the mortality from this cause could be ascertained it would be found to equal that from either typhoid fever, pneumonia or tuberculosis, and that possibly it might be found to exceed the mortality from all three diseases. He thinks that gonorrhea is the cause of at least 30 per cent of the deaths among prostitutes, and that through its later effects on the generative organs it may be the cause of death in a very large number of virtuous married women.

MEDICAL SOCIETIES.

SAN FRANCISCO POLYCLINIC GATHERING.

Concluded from p. 30, Vol. IV, No. I.

On the 25th a rose spot was seen on abdomen. Patient has the so-called typhoid odor. Pupils again equal and react. Patient resists examination; impossible to elicit knee jerks. No Babinski, no Kernig. During these days the temperature ranged from 100 to 102.5° F., the pulse from 84 to 110, respirations from 22 to 26. Lumbar puncture could not be performed owing to patient's resisting.

As matters now stood, I gave the patient the benefit of the doubt and treated him as a typhoid. We know that not infrequently typhoid fever gives us meningeal symptoms. It was yet too early to expect a Diazo or a Widal. Our leukocytes and the beginning with a chill seemed evidence against it being an uncomplicated enteric fever, and these, together with the right lung changes, as well as the report that herpes had been present on admission, caused our giving a possible pneumonia a few thoughts. But the absence of bronchial breathing, of cough, of expectoration, with slow respirations and fairly good heart action, led us to exclude pneumonia with certainty. The lung affair was considered as purely bronchial, with an old right-sided pleurisy, of probable bacillary origin, owing to its having run a fairly latent course, the boy never knowing of its existence. Again, the absence of cyanosis, dyspnea and presence of good pulse weighed against an acute miliary tuberculosis. There was no reason for suspecting the existence of a malignant endocarditis. Hysteria was out of the question. The absence of vomiting, convulsions, Kernig hydrocephalic cry, sufficient retraction of abdomen, hyperesthesia of skin and special senses did not as yet permit a positive conclusion as to the existence of a meningitis.

On the 26th the boy was quite clear mentally, and lumbar puncture was possible. Left pupil is definitely larger to-day. K. J. not elicited. Kernig questionable owing to resistance of patient. Voids urine in bed.

Monday, the 27th, the temperature was 99° at 4 a. m., a drop of 3 degrees in 4 hours, but it began to rise immediately. Tenderness under left costal margin, but spleen not palpable. The cerebro-spinal fluid obtained yesterday was examined now, a piece of work deferred from Sunday, owing to lack of time. Fluid was clear. Centrifugalized and sediment stained. Very great lymphocytosis, no tubercle bacilli but quite a few extracellular, uncapsulated diplococci. The slides used were unfortunately not new, and I could not swear whether or not they came from the fluid which seemed too clear for such a number of bacteria. And this very point now made it impossible to say whether a coccal meningitis existed. The restlessness of the patient (the presence of the boy's father) and having once seen a needle break under such conditions, as well as the lack of therapeutic justification, prohibited a second lumbar puncture. Examination of fundus was also impossible.

Tuesday, 28th, pupils equally dilated, react slowly to light. Neck rigid and patient cries with pain and fright when one tries to see if spine is rigid. Tache and cerebrale and Kernig definitely present. Urine and feces passed in bed.

Wednesday, twitching of muscles of upper extremities. Diagnosis positively meningitis, probably tubercular.

Thursday, right pupil dilated, left small, neither reacts. Does not shut left eyelid as firmly as right. Tongue protruded to left of median line. Kernig. No K. J. No Babinski. Twitching, especially of fingers of left hand. Delirious only at times. Has no headache. Rather cyanotic. Heart sounds weak. For first time patient raises a little sputum, which with difficulty he is made to expectorate. It is mucopurulent, contains many pneumococci and a few scattered cocci. No t. b. found. Right lung gives a tympanitic note over first space. Rales over both lungs. Trophic pressure, sore right hip.

Friday the boy died at 3:30 a. m. The autopsy was performed but a few hours later by Dr. Blumer. To give in short the pathological findings: The abdominal viscera were normal but for slight congestion of kidneys; one or two very small tubercles in spleen; few small tubercles upper surface of liver; caseous glands at hilus. The right lung was adherent to pericardium, diaphragm and chest wall. Occasional tubercle in apex, also slight congestion of upper lobe. Left lung, fresh adhesions at apex and few tubercles in apex. Patch of beginning broncho-pneumonia lower lobe. Heart normal. Early fatty atheroma of beginning of aorta, of coronaries; fatty patches in descending aorta. Tuberculosis of glands anterior mediastinum, bronchial and tracheal, latter caseous. Brain: dura normal, sinuses free from clots; slight increase of fluid in sub-dural space. At base and running up towards vertex, along larger vessels, a moderately extensive greenish yellow inflammatory exudate. An occasional tubercle to be made out along the vessels. Brain tissue soft and a little edematous, and adhesions between lobes. Vertex free of tubercles. All ventricles dilated and contain slightly cloudy fluid, smears of which show only lymphocytes. Single tubercle on right choroid plexus. Small mass of tubercular granulation tissue attached to free edge of left choroid plexus. Basal ganglia, cerebellum, pons and medulla normal. Cord not opened. Cultures taken from fluid at autopsy gave no growth.

Death from Antikamnia (?) by Dr. R. Bine: Miss W., age 22, becomes a nurse at the French Hospital. For a few days she has some headache, but only mentions it to other nurses as she wishes to remain on duty. Headache increases in severity and menstruation beginning, rest in bed is ordered her and antikamnia tablets prescribed. July 12th patient takes 40 grains of this drug; July 13th the same amount and July 14th, before 4 p. m., consumes 30 grains of antikamnia and some ammonia besides. I will add that nobody was aware of the amounts used until events caused an investigation. At 4 p.m. patient complains to a nurse that her headache is, if anything, worse. This nurse returns inside of fifteen minutes and to her horror finds her friend unconscious, not breathing at all, very blue. Doctors come in haste and artificial respiration is begun. Patient regains normal color. And from this time on until 11:30 a. m. of July 15th, artificial respiration is continued—a total of 19 hours of what proved to be very difficult work, all to no result. If for a few seconds the movements were discontinued, respiration ceased, cyanosis recurred, pulse became very rapid, weak and irregular. At first heart action was regular, not fast, strong. As the hours sped, it became gradually faster and weaker. At 11:30 a. m. cardiac sounds had become inaudible and the patient was declared dead. Needless to say that every known method for stimulating the respiration centers was tried in vain. From time to time the patient was catheterized and the urine examined. To the last it was practically normal; it never contained any blood cells or blood pigment in any form.

The absence of cyanosis as soon as artificial respiration was begun, the good cardiac action, the urine, as well as the history of headaches, made us think the drug alone was not responsible for the death.

From the patient's sister (who had been sent for) we learned that the dead girl had had diphtheria at 5 years of age and that during childhood she had frequently had severe headaches. The only pathological finding disclosed by a very carefully performed autopsy was a very marked internal hydrocephalus, with occlusion of the foramen of Magendie. The respiratory center, we judge from the chemical aspect of the case, was perhaps more vulnerable than the cardiac, and that it therefore suffered first from either the pressure of the fluid or from the toxic ac-

tion of the drug. The occlusion of the foramen, in our opinion, must have been caused by an old meningitis, and on this hypothesis do we exclude an otherwise possible diagnosis—the angioneurotic form of hydrocephalus—the so-called "meningitis serosa of Quincke."

Evidently intercranial pressure was increasing and causing the severe headache. Small amounts of acetanilid, even but one dose of 25 grains, has been known to cause respiratory paralysis and death; but in all cases reported of acute poisoning cyanosis persisted, urine findings were positive, and the pulse was weak and irregular. In this case we are therefore unable to say just how much we are to ascribe the respiratory paralysis to the drug, how much to the pressure.

We take this opportunity to thank the French Hospital staff, all of whom clinically saw more of the case than we did, for their kindness in permitting this report.

Dr. Levison: I would also call attention to the present terrific destruction in cases of poisoning. I have in mind a patient, I think it was about two years ago, in her eighth month of pregnancy. She took 90 grains of antikamnia, and when I saw her some hours after the taking of this large dose, she was extremely cyanotic, and an examination of the blood made within the 24 or 48 hours following the administration of this, showed a terrific destruction of the red corpuscles; the count was as low as a million, which gradually increased. She made a very good recovery, and a month later gave birth to a girl.

Some time ago, D. L. Brown wrote an article upon this subject, which was a very exhaustive one, and explained the matter very thoroughly.

Dr. Bine: The first thing I would like to ask is if the taking of this drug did not cause the patient's death. I didn't report the case as a case of antikamnia poisoning. I stated she was a hysteric patient, and took a big amount of the drug, which terminated in hematoporphyrinuria, which I believe was the cause of death; but the point which interested me particularly was if the taking of the drug could in any way have hastened the necessarily fatal attack. I don't know personally whether it could have, but the fact that it did come up at that time leads me to believe that the patient would have died eventually from the hematoporphyrinuria. She had had headaches right along before she took the drug, and it was only a natural sequence. I think her death would have resulted from it, but would like to hear from some one who will explain whether taking this drug could have caused a destruction of the blood, or in any other way could have hastened matters.

Dr. Smith: I would like to call the doctor's attention to the fact that in the year 1894 I reported a case and it was published in the *Virginia Medical Monthly*, of a patient who had a slight attack of grip. The patient was apparently well, had only been sick some few days prior to this time. I gave a few doses of calomel about 1 o'clock, and about 2 o'clock a cessation in breathing occurred, with the heart beating normal. There was no response to the steady process of artificial respiration, and we kept it up something like an hour or two, with respiration about forty-two. We had exhausted everything else in the community, and finally pressed into service a rather intelligent negro, and after explaining the situation came the answer: "I isn't in the resurrection business."

COOPER COLLEGE SCIENCE CLUB.

At the meeting of the Cooper College Science Club, held January 8th, Dr. Ophuls exhibited specimens of atheromatous aorta injected with paraffin at blood pressure. They showed that contrary to Thoma's contention in the beginning of this disease there is no evidence of primary weakness of the muscle. A paper by him on the subject will be shortly published in the *American Journal of Medical Sciences*.

Dr. Garrey discussed this paper, saying that he had done a little work on this subject and had arrived at the same conclusions with regard to the primary changes in the media.

Dr. M. Cosgrave read a paper on the "Report of Three Cases of Sporadic Cretinism."

In discussing these cases Dr. Hirschfelder said: I think the results in these cases are beautiful, especially in the case of the first child. I think hardly anyone would suspect cretinism at present, but the picture shows that the case is quite evident. At present the symptoms are by no means marked. This speaks well for the treatment, and also for the preparation used, for these preparations are not always fresh.

Report of a Case of Fracture of the Skull, with Demonstration of the Specimen, by Dr. Winterberg: This is not a very remarkable case, but is a very good specimen of a fracture of the skull. The man was about 35 years of age. He was injured by a blast in a quarry. His previous history has no bearing on the case. He was an English physician with the morphine habit, and had taken up this hard manual labor in order to break himself of the use of this drug. On the 28th of December, while coming from the quarry, a blast went off and struck him. He was found lying on the ground, conscious, bleeding from the nose and back of the head. His chest was riddled with holes, many of which were bleeding. Through one the air was blowing in and out. He was taken to San Rafael, and I saw him five hours after the accident. The temperature was 98, pulse 120, respiration 32. He had no headache, no dizziness, and no paralysis. Nothing referable to the head. He complained a great deal of pain on the left side. The next day I saw him again in consultation with a doctor in San Rafael and found his condition slightly improved. He felt stronger. The pulse, while still rapid, was somewhat better. The dressing was removed, the man walking to the table himself. A fracture was discovered just above the occipital protuberance. A depression was made out. It was cleaned and bandaged. His back was covered with a large number of wounds, mostly ragged, varying in size from a pin point to quarter of a dollar. Some 1½ inches in depth. On probing through the one through which the air had been coming in and out we found a fractured rib. The left side was solid and filled with blood up to the seventh rib behind. The wounds were dressed. Arrangements were made to bring him to San Francisco, but he refused to come over, and as his condition did not seem to warrant any operative interference, he was left there with his physician to watch him. The next morning he died. A post-mortem was performed. He evidently bled to death during the night through this wound in the chest wall, which had been closed while it had been examined. The clothes and bed and dressings were saturated with blood. There was nothing abnormal found, except this fracture in the head. The skull was removed, but no injury was found to the brain. The membranes were not ruptured. There was no blood clot further than that the inside of the bone was covered with a light layer of blood such as could have leaked in from the outside. The question was, what could we have done for the man under the circumstances? The indication, as far as fracture was concerned, was very simple. We could have trephined, but in view of the surroundings it seemed to me better to wait until the next day, especially as there were no symptoms referable to this fracture. Opposite this wound, 2 inches from the articulation with the seventh rib of the spine, the lung was torn. There were two large gashes. Some pieces of rock and shirt were extracted from this opening. Another question was what to do for the hemorrhage which he was so

evidently having in the pleural cavity. It was not possible to determine whether the hemorrhage came from the pleura or the lung. There was no cough, no blood. His pulse was fair. The amount of fluid pressing upon the heart interfered with the respiration considerably, but if that had been drawn off probably the hemorrhage which had stopped at that time would have begun again. We could have made a resection of the ribs, but it was so high up, more than one rib would have had to be resected. Suturing is not of much value. The cautery might have been tried.

Dr. Rixford said, in discussing the case: This case is interesting in that it has brought up a good many very interesting problems with regard to fractured skulls, as well as thorax conditions. This man was not unconscious at all after the injury; was able to talk within a few minutes. The fracture of this part of the skull, although it did not cause any symptoms and although it did not lacerate the dura, certainly would cause subsequent trouble, and I think that in cases where there is very much doubt of fracture, in a large proportion of cases, it is good surgery to make an exploratory incision. It so commonly occurs that the internal plates are broken much more extensively than the external plates and will lacerate the dura, and in a considerable number of cases you have no symptoms to determine the matter. With regard to the condition of the thorax, I think the indication is plain to suture the lung or to use the cautery, provided the diagnosis is made and the condition such as to warrant the operation, although suturing is not altogether successful. I had a case of a man shot through the abdomen and through the chest. I saw him some few hours afterwards. The physicians who had examined him had made up their minds that there was no indication for operation. Subsequently there developed symptoms which made it necessary to operate. Persistent pain in the abdomen particularly. We opened the abdomen and found a number of perforations which we sewed up. The wound in the chest did not receive the consideration it should have. It was a small wound and bled only a little. The skin covered it in such a way as to form a valve and prevented bleeding. At the same time the patient was able to bleed into the pleural cavity and bleed to death, and this is what happened. We did not know that this wound of the chest wall penetrated. I neglected to put in my finger and hunt for the hole. I knew that another surgeon had previously taken out a bullet immediately under the skin a few inches from this point. Had I found the hole and percussed the chest and determined that there was an increased dullness, I should have opened the chest and attempted a suturing of the lung. This case is similar to the one reported.

Dr. Clark: I had a case somewhat similar, where a man was injured, the lung being torn by a piece of rock. A rib was fractured at about the fourth rib. The interesting point was that while there was not much hemorrhage the air was rushing in and out. A dressing was put on and strapped and the man did very well, but later an abscess formed in the lung which broke into the bronchi and a piece of rock was spit out through the mouth. The man recovered.

Dr. Stillman: In regard to the lung condition in this case, I think that it might have been recognized sooner that there was a continuous hemorrhage. I do not think there is any indication for opening a thorax because of a penetrating wound or collection of blood. But persistent hemorrhage should have been an indication for interference. If it is necessary to take out two or three ribs, take them out. Macewen has stopped a number of hemorrhages in that way. There is a difference in the character of wounds made by gun shot and by pieces of rock. The rock is very apt to carry in foreign bodies, but not so with the bullet. With regard to the skull, I think it is better surgery to expose the fracture and to open the wound well enough to see the condition inside of the skull.

Dr. Winterberg, Sr.: It is easier to advise treatments in cases of this kind when you know the conditions that existed. But before you know it is much more difficult. In this case there were two conditions that required treatment. One was the fracture of the skull and the other the fracture of the ribs. If it could have been known that there was a foreign body in the lung tissue blown in there by the rock, I would have been of the opinion that interference would have been necessary, not so much on account of the hemorrhage as on account of the presence of the foreign body, which requires removal. These foreign bodies often carry infectious material into the lung tissue. As long as this condition was not known then I do not think there was indication for a resection of the ribs, on account of the two lesions which co-existed at that time, a big operation would have been a shock to the patient. I would have confined myself to the giving of medicines which stop hemorrhage. It would not have been advisable to attempt operation for the fracture of the skull so long as such a severe wound of the lung existed from which there was a considerable loss of blood and which was rapidly exhausting the patient. In the absence of any symptoms of irritation to the brain or compression, I would not have interfered. Without the symptoms of brain compression it was just as well to wait a little for the patient to interfere. I agree that trephine in these cases is the proper thing, and I recommend and do it at once if there is nothing else to complicate the case.

Dr. Winterberg, closing discussion: There was no question in my mind as to what course to take with reference to the fracture of the skull. But the question was whether the man would die of the condition in the thorax, whether it was not better to wait a few hours longer. We had no opportunity of knowing that there was progressive bleeding there. I saw the man only once and waited to make another examination the next morning, having no way to know that there was continuous bleeding there. The fault was really with the attendant who watched during the night.

Dr. Hewlett read a paper on "Herpes Zoster."

Dr. Lehmann demonstrated a Roentgen plate of a case of pododynia gonorrhea. A man of 30 years was sent for an X-ray examination of his right foot. He was complaining of severe pains on the plantar surface of the heel which were especially marked when standing or walking on the foot. The pains had been especially pronounced for several weeks, but had bothered him somewhat for a longer time, as he thinks for about twelve years, because he connects them with an accident which he had twelve years ago when he sprained that foot and was obliged to keep in bed for a month. Although these pains were localized to the right foot and the well-known sore heel due to gonorrhea is usually bilateral, I asked for gonorrheal infection and found that he had had gonorrhea twelve years ago, and several times since, the last time being about one year ago. I made plates, therefore, of both feet and found a faint exostosis on the plantar surface of the calcaneus corresponding to the insertion of the plantar aponeurosis, very much larger, rough and irregular on the right, the diseased side, and more rudimental and smaller on the left side.

These cases which have been looked upon as bursitis gonorrhetic before the Roentgen rays had been discovered are more common than usually presumed. Only lately in Johns Hopkins Bulletin seven cases have been reported. Five of the patients have been operated upon. In these the very satisfactory findings have been made of gonococci in pure culture; gonococci in sections in two more cases.

THOMAS ROSS, M. D.

On the morning of the 11th of February Dr. Thomas Ross, councilor for the eighth district and an ex-president of the State Society, died at his home in Sacramento from cerebral hemorrhage. Dr. Ross was president of the State Society in 1901, and in the transactions for that year appeared the following brief biography:

Thomas Ross was born of Highland Scotch parents in Lancaster, Ontario, Canada, on November 26, 1839. He was educated in the Glengarry County Grammar School in St. Andrew's Academy, Argentneil county, Quebec, and in the University of McGill, Montreal, where he graduated in 1863, receiving the degree of M. D. C. M. Dr. Ross located in Lancaster, his native town, until 1864, when he came to California and located in Woodland, Yolo county, where he practiced medicine until 1893; then he came to Sacramento to take charge of the practice of Dr. M. Gardner, the former chief surgeon of the S. P. Co., during his visit to Europe. Dr. Ross was county physician of Yolo county for four years and mayor of Woodland from 1891 to 1893, when he resigned. He was always interested in the work of local and state medical societies. He was the first president of the Yolo County Medical Society, treasurer of the Medical Society of the State of California, from 1895 to 1900, when, at the session in San Francisco, he was elected president. Dr. Ross had been a member of the State Medical Society since 1871, and had the honor of being a permanent member. He had been chairman of several standing committees, and read several papers before the society. Dr. Ross had been physician to the Southern Pacific Company's hospital in Sacramento, president of the Sacramento City Board of Health and president of the Board of Examining Surgeons for Pensions in Sacramento. Dr. Ross presided at the annual session of the society held in Sacramento in April, 1901, which was one of the most successful meetings in the history of the society.

Those who have been habitual attendants at the meetings of the State Society will miss Dr. Ross very much. He was one of the most regular attendants, and his pleasant word and cheerful smile had come to be almost official parts of a meeting of the State Society.

THE TASK OF THE WEEKLY MEDICAL JOURNAL.

Under this head our esteemed contemporary, *The Boston Medical and Surgical Journal*, laments that more and more is expected of it year after year. The specialist on the one hand and the general practitioner on the other, each seem to want to find in his weekly medical paper something suited to his taste. To us this frank statement of the wants of the profession "up Boston way" does not seem to disclose a revolutionary state of affairs. It is easy to believe that both specialists and men in general work might want to find something in the *Journal*, that they pay $5 a year for, that would be interesting and instructive.

Admitting that the implied self-accusation is well founded, which we only do for the sake of the argument, and deprecating to the full the extremely large piece of humble pie which our contemporary proceeds to eat in public, what ought to be done to satisfy the rapacity of the readers of *The Boston Medical and Surgical Journal?* Is there no way in which they can be made to take a less Oliver Twist-like attitude? Can they not be led to see the unusual, the unprecedented, the really embarrassing position in which their unappeased appetite for medical knowledge places the proprietors of "The Old Corner Book Store"?

Perhaps, after all, our over-modest contemporary has overestimated the wants of his readers. Surely it would be necessary to trephine any proper Massachusetts doctor before the idea could be introduced into his brain that "The Old Corner Book Store" or most any other old corner thing could be improved, provided that it had been born and bred in Massachusetts and had never been out of the state.—*Journal of the Medical Society of New Jersey.*

COUNTY SOCIETIES.

Alameda County.

The regular monthly meeting of the Alameda County Medical Society was held on December 19, 1905. Appendicitis was the subject of the evening. Dr. T. C. McCleave spoke upon the "Pathology of Appendicitis," including etiology, touching briefly on the various theories as to the cause of the disease, the various bacteria found in the inflamed appendix, the role of foreign bodies, now known to be of slight importance, the influence of age, sex, race, traumatism, etc. Dietary indiscretions were stated to be perhaps the chief exciting cause of acute inflammations of the appendix, though, of course, the immediate cause is always bacterial infection. The streptococcus pyogenes is probably most important in this connection, next the B. coli communis. Other organisms found are the B. pyocyaneous, B. proteus vulgaris, micrococcus pyogenes, and, doubtfully, the pneumococcus. The B. typhosis, B. tuberculosis, ameba coli, actinomyces, etc., produce specific inflammatory processes in appendix.

The pathologic changes in the appendix were considered under the following heads (Kelly's classification): (1) Acute appendicitis—catarrhal, diffuse, purulent, perforative, or gangrenous. (2) Subacute and chronic appendicitis. (3) Peritonitis accompanying or resulting from appendicitis. (4) Metastatic affections—lesions of distant organs resulting from appendicitis.

The gross and microscopic tissue changes occurring in these several types of the disease were discussed at considerable length and cannot well be epitomized.

Dr. W. A. Clark read a paper on the "Surgical Treatment of Appendicitis." He took the ground that early operation is the treatment of choice in all cases of appendicitis. He described the various operations and gave statistics of his work at the Alameda County Hospital. This paper elicited considerable discussion, the members present for the most part agreeing with the principles laid down by Dr. Clark.

The society then spent a social hour in the discussion of the beer and sandwiches which are now a regular feature of the meetings.

The annual business meeting of the society was held on January 16, 1906. The following officers were elected: President, Dr. Shannon; vice-presidents, Dr. Crosby and Dr. Keyes; secretary, Dr. Pratt; treasurer, Dr. Dukes; trustees, Drs. Miller, Adams, Smith; delegates, Drs. Thomas and Lily.

T. C. McCLEAVE.

Contra Costa County.

The Contra Costa County Medical Society held its regular quarterly meeting in Dr. Abbott's office, Point Richmond, December 10th.

Before the business meeting the society was tendered a dinner by its local members, and was an enjoyable surprise.

The minutes of the previous meeting were read and approved.

The following resolution was unanimously adopted:

That the minimum fee for examination for the "old line" life insurance companies be $5; for fraternal insurance companies and other organizations, $2; for ordinary examinations for fraternities, $1.

The secretary was instructed to prepare the above resolution so that each member could have a signed copy framed.

The following officers were elected for the ensuing year: President, Clark L. Abbott, Point Richmond; vice-president, Herbert C. Watts, Pinole; secretary, J. Walter Key, Crockett; treasurer, J. L. Riley, Port Costa; delegate, J. T. Breneman, Martinez.

Dues for the local society were raised from one to one dollar and a half.

J. WALTER KEY, Secretary.

Monterey County.

At the last meeting of the Monterey County Medical Society, held in Pacific Grove, January 6th, the society advanced another step in the corporation proceedings by electing as directors for the first year: Drs. J. Parker, E. K. Abbott, A. M. Ritchie, D. Brumwell and E. A. Majors. The meeting was well attended, and was followed by a banquet in Hotel El Carmelo.

The profession as well as the public of Monterey county and Salinas city in particular are congratulating themselves at the prospect of having a fine modern sanitarium which will be built and presented to the city by Mr. James Bardin. The building is to be of molten Monterey sand. There will be about fifteen private rooms, besides the wards, a three-room operating department and a solarium. An X-ray and all late improvements will be secured.

The Tri-County Medical Society, composed of Santa Cruz, San Benito and Monterey counties, held a meeting in Salinas January 8th. The papers read were by Dr. Saxton Pope of Watsonville, on "Medical Charlatans," and by Dr. N. E. Richardson of Salinas, on "Some Notes on the Treatment of Cancer of the Cervix by the Roentgen Rays; With Report of a Case."

This was the first meeting held for several years, but we hope to continue them, as they have proved very profitable, both scientifically as well as socially.

N. E. RICHARDSON, Secretary.

Orange County.

The Orange County Medical Association held its regular monthly meeting in Santa Ana February 6th. A communication was read from Dr. Philip Mills Jones relative to a visit by him to the physicians of the county, and the members were unanimous in a request for Dr. Jones to visit the county.

An interesting letter from Dr. R. A. Cushman was read giving a plain, simple classification of the different forms of insanity. The doctor urged physicians to give this matter more attention, as their papers accompany the patient to the state asylums and are an index of their attainments along these lines. No doubt, when hurriedly or carelessly made out, they are a source of amusement to the asylum physicians. The paper of the evening was read by the secretary, the title being "Club-foot," which was discussed by those present. The society accepted an invitation from Dr. Freeman to meet in Fullerton at their next regular meeting, March 6th.

H. S. GORDON, Secretary.

Riverside County.

The Riverside County Medical Society met in regular session on Monday evening, January 8th. Those present were: Drs. Sawyer, Van Zwalenburg, Parker, Girdlestone, Kendall, Baird, Martin, Dickson, Walker, Griffith and Outwater. Dr. F. M. Pottenger and Dr. Dudley Tait were also present as guests.

The minutes of the last meeting were read and approved. The secretary read a number of communications, and reported that three applications for membership had been received. He also stated that there were eighteen physicians in good standing in the society on January 1, 1906.

The treasurer made a report as to the financial status of the society and on his motion the president appointed Drs. Sawyer and Martin a committee to audit his accounts.

The committee on membership reported in favor of the applications of Dr. Thos. R. Griffith, Riverside; Dr. Chas. E. Winslow, San Jacinto; Dr. G. D. Keeler, Thermal, and they were duly elected to membership in the society.

This being the annual meeting the society elected officers for the current year, with the following result: President, H. R. Martin; vice-president, Sam'l Outwater; secretary, C. Van Zwalenburg.

Dr. F. M. Pottenger of the Pottenger Sanatorium, Monrovia, now gave a very interesting and instructive address on the "Diagnosis and Treatment of Tuberculosis." A vote of thanks was given to him for his kindness in appearing before the society.

Dr. W. B. Sawyer then read a paper, "The Substance and The Shadow," and, in an exceedingly witty, humorous and telling manner, paid his attention to the legion of quacks who infest all branches of the healing art.

We were very fortunate in having with us Dr. Dudley Tait of San Francisco, one of the State Board of Medical Examiners, and he kindly consented to speak on some of the interesting points brought out in the papers presented.

At midnight we were invited by Mrs. Martin, our hostess, to the dining room to partake of the bounteous supper which she had very kindly prepared. A vote of thanks was given to Dr. and Mrs. Martin for their kindness in entertaining us.

SAM'L OUTWATER, Secretary.

San Joaquin County.

The regular monthly meeting of the San Joaquin County Medical Society was held in the office of Dr. Minerva Goodman, January 26, 1906; Dr. Charles R. Harry in the chair. Members present: Drs. C. R. Harry, Margaret H. Smyth, E. L. Blackmun, S. W. R. Langdon, S. B. Davis, W. S. Snedigar, Ira B. Ladd, M. C. Taylor, J. P. Hull and Barton J. Powell.

The question as to admitting Homeopaths and Eclectics to membership in our society was again discussed, and it was decided that the San Joaquin County Medical Society in the future invite all reputable practitioners to become members of our society. It was also carried by a three-fourths vote of the society that in the future the offices of secretary and treasurer be combined.

Dr. Minerva Goodman reported a case of noma—a case that came under her inspection some months past. The doctor reported the case in detail, and a complete blood count was carefully reported up to the time of the death of the patient. The discussion was opened by Dr. J. P. Hull. Dr. Ladd reported having treated a case of noma a few years ago. The case was freely discussed by the other members present.

BARTON J. POWELL, Secretary.

Santa Clara County.

At a stated meeting of the Santa Clara County Medical Society, held January 17, 1906, the following resolutions offered by Dr. Lincoln Cothran, of San Jose, were unanimously adopted:

Resolved, That the hearty thanks of the Santa Clara County Medical Society are hereby given to our STATE MEDICAL JOURNAL, to the *Ladies' Home Journal* and to *Collier's Weekly* for their efforts to suppress the nostrum evil that has so long disgraced our country and also for their exposures of the unholy alliance of the advertised nostrum proprietors by which they have degraded newspapers and druggists to sharing with them the profits of falsehoods and frauds.

Resolved, That copies of these resolutions, signed by the president and secretary of this society, be forwarded to our STATE MEDICAL JOURNAL, to the *Ladies' Home Journal* and to *Collier's Weekly*.

The following resolutions introduced by Dr. M. A. Southworth and seconded by Dr. J. F. Burns were also unanimously adopted:

Resolved, That the Santa Clara County Medical Society hold that medical and surgical contract practice is unethical.

Resolved, That the Secretary forward a copy of these resolutions to the secretary of the California State Medical Society.

A. E. OSBORNE, Secretary.

Shasta County.

Shasta County Medical Society met in regular session January 20, 1906.

Minutes of previous meeting read and adopted.

Drs. B. F. Saylor of French Gulch, E. J. Cornish of Lamoine, and Wm. E. Dozier of Winthrop, were unanimously elected to membership in our society.

Under the head of Written Communications, a letter was read from Dr. Philip Mills Jones of San Francisco, secretary of the State Society, commending our action and argument with the local Aerie of Eagles.

On motion, duly seconded, by unanimous vote the secretary was instructed to invite Dr. Jones to meet with us at our next regular meeting on the 21st of April, 1906.

A letter of resignation from membership in the Shasta County Medical Society from Dr. C. W. Bryant was read, in the following language:

"To the Shasta County Medical Society:

"Gentlemen: Regarding your action relating to physicians who follow contract society and lodge practice as direct attack upon fraternal benefit organizations, being a member and physician under contract with societies and fraternal organizations, I hereby tender my resignation as a member of the Shasta County Medical Society and sincerely hope and trust the same will be accepted.

(Signed) "C. W. BRYANT, M. D."

Relating to the foregoing the following resolution was offered by Dr. C. E. Reed:

Resolved, That the resignation of Dr. C. W. Bryant be not accepted on account of its disrespectful language to the Medical Society, and, further, be it

Resolved, That his name be dropped from the roll of membership of the Shasta County Medical Society for accepting contracts and continued performance of contract lodge practice, which has been officially declared unlawful by previous action of this society, as stated in his letter to the Medical Society.

(Signed) C. E. REED, M. D.

The resolutions were referred by the chair to the Executive Committee for action.

An interesting paper on the subject of "Ectopic Pregnancy—Its Frequency, Diagnosis and Treatment" was read by Dr. C. J. Teass of Kennett, and discussed by Drs. C. E. Reed, L. A. Bauter, C. E. Boynton and R. F. Wallace.

Under head of New Business Drs. O. J. Lawry of Redding and C. J. Teass of Kennett were elected as delegates to the next meeting of the Medical Society of the State of California; Drs. C. E. Reed and R. F. Wallace as alternates.

It being the regular meeting for installation of officers, after an interesting resume of our work under his administration by the retiring president, Dr. O. J. Lawry, Dr. C. E. Reed of Redding was duly installed as president for the ensuing year.

Society then adjourned to meet in regular session on the 21st of April, 1906.

R. F. WALLACE, Secretary.

Sonoma County.

The regular monthly meeting of the Sonoma County Medical Society was held Thursday evening, January 11th.

Dr. Stuart gave a most interesting address on "American Medicine," a history of medicine in this country from the settlement of Jamestown, in 1607, to date.

The following new officers were installed: A. McG. Stuart, president; J. H. McLeod, vice-president; E. M. Yates, acting secretary until Dr. Mallory's return; Lizzie Lain, treasurer; Drs. Seawell and Kerr, delegates to State Society, and Drs. Anderson and Sprague, alternates; Dr. Urban, to Board of Censors

San Francisco County Medical Society.

The meeting of the directors of the San Francisco County Medical Society was called to order January 16, 1906, at 8:30 P. M., President Terry in the Chair. At this time the following directors were present: Drs. Jones, Rixford, Cooper, Morrow, Ophuls, Gibbons, Cheney, Ryfkogel, Terry, Carpenter, Watt, Blumer, Barbat.

The minutes of the last regular meeting of the County Medical Society were read by the secretary and approved.

The minutes of the last meeting of the Board of Directors were read by the secretary and approved.

Reports of officers: The following appointments were reported for the committees: Committee on Admissions—Drs. E. G. Frisbie (chairman), L. A. Draper, W. R. Dorr, H. P. Robarts, J. Van Denburg; Committee on Ethics—Drs. D'A. Power (chairman), Clark Burnham, R. K. Smith, H. B. Hill, L. M. F. Wanzer; Committee on Finance—Drs. F. B. Carpenter (chairman), Geo. Ebright, A. H. Giannini; Committee on Library—Drs. H. C. Moffitt (chairman), A. J. Lartigau, Herbert Gunn; Executive Committee—Drs. A. W. Hewlett (chairman), Chas. Levison, Rene Bine; Committee on Public Health—Drs. Wm. Ophuls (chairman), A. E. Taylor, John Gallwey, Alice Woods, J. B. Frankenheimer; Milk Commission—Drs. A. B. Spalding, Dr. W. F. Cheney, Geo. Evans, A. E. Taylor, R. L. Porter.

As chairman of the Finance Commitee, Dr. Carpenter made the following verbal report: "I would only like to state that the Finance Committee would like to have all bills put into the hands of the committee as early as possible, and at least as early as the 25th of the month, in order that they may be passed upon and have everything ready for the first of the month."

Dr. Rixford, treasurer, brought up the matter of his bond, stating that the by-laws provided that a bond should be presented for $5000. He said that it had been customary for the bonds to be paid by the society at the rate of $10 per thousand. That Dr. Barkan, in speaking of the matter, had offered to go on his bond and thus save the society. He said that he had a bond drawn up by a notary public, which could be acted upon by the Board of Directors. Dr. Rixford furthermore presented a blank voucher form for the consideration of the Board, for the paying of bills.

Dr. Carpenter moved that the treasurer be authorized to have the vouchers printed similar to the form presented.

It was suggested that perhaps the Finance Committee should be consulted.

Dr. Carpenter made an amendment to his motion that the Finance Committee confer with Dr. Rixford on the subject of the vouchers. Seconded. Carried.

Treasurer Rixford presented a bill for the printing of the by-laws, amounting to $37.50. It was moved that this bill be paid. Seconded and carried.

The bond presented by Dr. Rixford was read by the secretary.

Dr. Carpenter moved that the bond be accepted by the secretary. Seconded and carried.

Dr. Barbat made a motion that both Dr. Rixford and Dr. Barkan receive thanks from the County Medical Society for the action taken with regard to the bond. Motion seconded. Carried.

The secretary announced that on account of the absence of Dr. Wemple, the report of the Finance Committee would not be presented until next meeting.

Unfinished business: The secretary stated that there was a letter from Dr. P. J. Conran refusing to pay his dues. Letter read by the secretary. It was moved and seconded that Dr. Conran be dropped.

Dr. Jones made an amendment that the name of Dr. Conran be dropped from the roll of the society and the account for his JOURNAL be referred to the secretary of the State Society. Motion seconded and carried.

The account of Dr. I. Cohen of Napa was presented for consideration by the secretary, who stated that Dr. Cohen now owed $13 up to January.

Motion made that the action on Dr. Cohen be postponed until 1906 list should come out. Motion seconded. Carried.

The account of Dr. A. Schloss, who owed $18, was presented by the secretary, who stated that he refused to pay the collector. Motion made that Dr. Schloss be dropped from the roll. Motion seconded. Carried.

The secretary announced that Dr. John Stile refused to pay the collector.

Dr. Jones called attention to the fact that it is provided in the by-laws that the secretary drop the names of delinquents from the roll and that they did not need to be gone over by the directors.

Dr. Carpenter, on behalf of the Executive Committee, reported that two rooms on the second floor on the north side had been offered for the library, and that there was nothing available in the building otherwise.

Dr. Rixford moved that the Executive Committee be given further time to investigate the matter of library rooms. The motion seconded. Carried.

It was moved that the same committee that had charge be requested to continue its efforts. Motion seconded. Carried.

New business: The secretary reported the illness of Dr. Westerberg, saying that Dr. Fehlen had reported it as a hopeless case. He said that Dr. Westerberg wished to resign, but still owed $5, and wished to resign in good standing. It was moved that the $5 be remitted to Dr. Westerberg and his resignation be accepted. Motion seconded. Carried.

Dr. Rixford moved that this action be reconsidered. Motion seconded and carried.

Dr. Rixford moved that the present indebtedness and dues for 1906 be remitted. Motion seconded and carried.

The secretary read the resignation of Dr. Kate I. Brady. It was moved that it be accepted. Seconded and carried.

The resignation of Dr. Orr was read by the secretary. It was moved and seconded that this resignation be accepted. Motion carried.

The resignation of Dr. F. Farrow was read by the secretary. It was moved and seconded that this resignation be accepted. Motion carried.

A request from Dr. Rupert Blue was read by the secretary asking for a leave of absence for one year, without dues, be granted him. It was moved and seconded that he be granted time and his dues be remitted. Motion carried.

Secretary read the resignation of Dr. W. H. Heinzman, who wished a transfer card to Austin, Nev. Moved and seconded that this be accepted. Motion carried.

A letter was read by the secretary from Dr. O. Taylor requesting a leave of absence from August, 1905 to 1906. It was moved and seconded that the present indebtedness of Dr. Taylor be remitted and he be given leave of absence until July 1, 1906. This motion was seconded and carried.

A letter was read by the secretary regarding the bill now before the United States Congress relating to abolishing contract surgeons.

Dr. Jones moved that the secretary be instructed to advise our Senators and Representatives in Congress that the San Francisco County Medical Society approves of the bill to regulate the United States Army Medical Department. This motion was seconded and carried.

Dr. Rixford made an amendment to the effect that the secretary's next announcement include an invitation to each member to write to the Congressmen.

The death of Dr. Chismore was announced.

Dr. Ophuls moved that the president appoint a committee of three to take what action is deemed proper in regard to the death of Dr. Geo. Chismore. This motion was seconded and carried.

President Terry appointed Drs. Sherman, Newmark and Rixford as committee to act on the death of Dr. Chismore.

Dr. Barbat made the suggestion that the meeting of the directors take place one week before or after the regular meetings, as there was not time in which to transact business on the same evening with the regular meeting.

Dr. Jones made the suggestion that the scientific meetings of the society come more often than once a month, stating that the Los Angeles Society now had scientific meetings every week. He said there was enough material available to keep the attention of the society for one evening a week.

Dr. Jones made a motion that the chair appoint a special committee of three to consider the plan of weekly meetings for this society and present their considerations to the Board of Directors. This motion was seconded and carried.

Election of delegates and alternates for the State Society: The following names were submitted for nomination for delegates: Drs. Brown, Tait, Huntington, Levison, Morrow, Nagle, Somers, D'A. Power, W. S. Thorne, Lartigau, Pond, Moffitt, Kerr.

President Terry appointed Drs. Cheney and Hunkin tellers.

There being no further nominations, the ballot was counted and the president announced the following elected as delegates: Drs. Morrow, Hunkin, Kerr, Huntington, Brown, Lartigau, Somers, Tait.

Nominations were then called for for the alternates and the following names submitted: Drs. Brunn, Burrows, Clark Burnham, R. D. Cohn, Geo. Ebright, E. G. Frisbie, H. B. Graham, Harold Hill, V. H. Hulen, Chas. Levison, H. Kugeler, Jas. Watkins, A. H. Taylor, F. R. Starr, Spencer, A. B. Spalding, Raymond Russ, D'A. Power, Perry, E. Wemple, Sr., G. P. Pond.

There being no further nominating, the nominations were closed and the secretary instructed to cast the ballot for these members as alternates. The secretary reported the ballot cast and they were duly declared alternates for the State Society.

The meeting adjourned at 10:25 P. M.

Snake Venom a Product of Digestion.

Experiments with the production of poison by vipers have indicated that the secretion of the poison is closely connected with the process of digestion. Dr. G. de Christini states that from his experiments he concludes that the poison glands of the snake take the place of the salivary glands in the higher vertebrates, and are designed to free the organism from poison products. Extirpation of the glands caused death, as did also prevention of the excretion of the poison. The poison is secreted under the influence of digestive stimuli, and when milk, as an example of easily digested food, was given to snakes, the poison became less intense. Dr. de Christini concludes that the secretion of the poison glands has the same function as that of the kidneys; that is, to free the body from the poisonous substances in the blood, from which the venom is formed.—*Journal A. M. A.*

Scopolamine-Morphine Anesthesia.

Among the many new anesthetics which are tried and rejected every few years, the combination of scopolamine and morphine bids fair to obtain and to hold the favor of surgeons and obstetricians. The combination has been in use in Europe since Schneiderlin first advised it in 1900. The development and general introduction of the method is linked with the name of Korff, of Freiburg, who has given the best instructions as to its use.

Morphine 3 (three) centigrams—one-half grain mixed in water with scopolamine hydrobromate 12 (twelve) decimilligrams—one-fiftieth grain[1] is divided into three doses, which are injected hypodermatically, one dose two and one-half, one dose one and one-half, one dose one-half hour before the time set for the operation. The patients become drowsy after the first dose, sleep fairly soundly after the second, and are fast asleep and insensible to pain after the third dose. Operations lasting hours, if necessary, can then be performed without the patient knowing or feeling or remembering anything about the operation. Such, at least, is the result in one-third to one-half of the cases. In the rest of the cases the patients are sleepy and semi-conscious, but not sufficiently so to allow extensive operating. Then, in addition to scopolamine-morphine, either chloroform or ether or local anesthesia can be used. The advantage of the scopolamine-morphine, however, is quite marked even then, as the amount of chloroform or ether necessary is extremely small, if scopolamine-morphine has been administered beforehand.

The diminution of the amount of chloroform or ether, if needed after this injection, is so pronounced and so valuable that a number of surgeons prefer to use a small amount of scopolamine-morphine (about half the dose mentioned above, and injected about half an hour before the operation), merely as a preliminary to the chloroform or ether to be given afterwards. These surgeons then do not even attempt to perform the operation under the scopolamine-morphine anesthesia, but use it merely with the purpose of saving ether or chloroform, and for the sake of the other advantages to be derived from scopolamine-morphine. Our own experience with scopolamine-morphine (over one hundred operations), when used exclusively, has been so satisfactory that we use the full dose every time, hoping to be able to perform the entire operation without a drop of chloroform or ether. The spectacle of a patient lying quietly on the table and passing through a vaginal hysterectomy, for instance, without a visible anesthetic or anesthetizer, is rather weird in the beginning, particularly if the patient, as some do, has the eyes open and seems to be looking on.

The advantages of the anesthetic are objective and subjective ones. Among the latter, it is of particular importance that the worry and excitement preceding the administration of a general anesthetic, or even the transportation of the patients to the operating room, are entirely absent. Also, the patients have no recollection of anything which takes place after the first or second injection. They go to sleep in their beds and wake up in their beds without remembering anything of the trying details connected with a surgical operation. In the same way the disagreeable sensations of the first few hours after the operation are abolished, as the patients sleep about five hours after the last injection.

Among the objective advantages may be mentioned the dryness of the mouth, which prevents lung complications, even where ether has to be added, or where operations near or in the mouth or throat have to be performed. After the operation, vomiting is entirely absent if scopolamine-morphine alone is used, and is almost absent if ether or chloroform have to be added. The scopolamine-morphine does not interfere with the excretory functions after the anesthesia has worn off.

We have never used scopolamine-morphine on children under twelve years; on the other hand, scopolamine-morphine is invaluable in old and decrepit patients, where chloroform or ether would be dreaded. The older and more feeble the patient, the smaller the dose of scopolomine-morphine needed for complete anesthesia; so that in such cases two-thirds or even one-third of the dose mentioned above is sufficient.

Except as to the production of sleep and insensibility to pain, scopolamine and morphine are antagonistic to a certain degree, so that, for instance, the depression of the circulation, which might be feared as a consequence of a large dose of morphine, is counteracted successfully by the scopolamine. There is no record that a human being has ever been killed by scopolamine, even if given in much larger doses than

Note: The dose given in *Annals of Surgery*, August 1905, page 195, is a misprint

mentioned here. There is, so far, no case on record where a death after operation could be charged against the scopolamine-morphine anesthesia with any degree of scientific precision.

The obstetrician, according to European reports, seems to have the promise of the most happy results from this anesthetic. It has been used in Continental clinics on large series of cases (800, for instance, in the Freiburg clinic). The administration for obstetrical purposes is stated not to interfere with the contractions, not to lead to hemorrhage and not to be dangerous to mother or child. The amount used is one-third of the dose stated above for surgical anesthesia, and is given every five to six hours. Handled in this way, the anesthetic is sufficient to render labor painless, and increases materially that slight degree of forgetfulness for pain with which nature has so kindly endowed the parturient woman. Where necessary, obstetrical operations can be performed either with the scopolamine-morphine given up to the time of the emergency or by adding an extra dose, or if the most rapid interference is demanded, by using a very small amount of chloroform.

In country and in military practice the new combination promises to be particularly useful, as an operation can be carried out frequently without any chloroform or ether; or, if they are needed, without an expert anesthetizer. If ether or chloroform has to be used, the amounts necessary are small, and need only be given intermittently and at the discretion and under the command of the operator.

EMIL RIES, M. D.

—*Surgery, Gynecology and Obstetrics*, October, 1905.

Sacramento's New Ordinance.

A most commendable step was taken by the City of Sacramento in the adoption of an ordinance which is here presented.

Ordinance No. 717.

An ordinance relating to and regulating the sale of undrawn slaughtered poultry, fish, game, and any animal to be used for food purposes, within the limits of the City of Sacramento, and prescribing a punishment for the violation of the provisions thereof:

The Board of Trustees of the City of Sacramento ordain as follows:

Section 1. It shall be unlawful for any person, firm or corporation, within the limits of the City of Sacramento, to sell, offer or expose for sale, any slaughtered poultry, fish, game or any animal, used for food purposes refrigerated or otherwise, which has not been properly drawn and prepared by removing the viscera at the time of slaughter.

Section 2. Any person or persons, firm or corporation, violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding one hundred dollars or by imprisonment in the city prison not to exceed fifty days, or by both such fine and imprisonment.

Section 3. This ordinance shall take effect and be in force from and after date of February 1, 1906.

Passed December 11, 1905.

ALBERT ELKUS,
President of Board of Trustees.

Approved December 23, 1905.

W. J. HASSETT, Mayor.

In operations on alcoholic subjects it should always be remembered that the vitality of the tissues is often so low that the application of even moderate degrees of heat may give rise to sloughing.—*International Journal of Surgery.*

PUBLICATIONS.

A Laboratory Manual of Physiological Chemistry.—By E. W. Rockwood, B. S., M. D., Professor of Chemistry and Toxicology and Head of the Department of Chemistry in the University of Iowa. Philadelphia. F. A. Davis Company, 1906.

The writer has assembled in convenient form all the more common tests. As the title implies, the book is intended as a laboratory companion. The introduction of extra leaves for note-taking is the strongest feature of the book. The binding is strong and serviceable. C. Q.

The Medical Diseases of Egypt.—By F. M. Sandwith, M. D., F.R.C.P. Part I, London, Henry Kimpton, 1905.

This book is written primarily for the practitioner, who, having completed his ordinary medical studies, desires to engage in practice in Egypt. Special stress is therefore laid upon those diseases that are peculiar to Egypt, and to other tropical countries. These are described almost wholly from the large personal experience of the author, and the accounts are interesting and real. Of special interest are the descriptions of typhus fever, relapsing fever, Mediterranean fever, bilharzia disease, uncinariasis, and pellagra. Sandwith believes in the value of the agglutination test for Mediterranean fever in dilutions of 1:20 to 1:50. Looss's original experiments proving that uncinaria embryos can penetrate the skin are described in detail. The book is interesting and instructive to any physician, but it is of decided value to those who are interested in tropical medicine.

A. W. H.

Clinical Methods.—A guide to the practical study of medicine has appeared from the press of W. T. Keener & Co., of Chicago. This is an English work by Robert Hutchison, of London, and Harry Rainey, of Edinburgh, and the fact that the third edition now appears bears evidence of the popularity of this little work on methods of clinical investigation.

There is much in the volume to commend it to the student of medicine, particularly the conciseness with which the authors place before their readers the methods of clinical investigation by which correct diagnoses may be obtained. The limits of a brief review do not allow of calling attention to the particular virtues of special chapters, but the reviewer would like to mention the excellence of the one on the examination of children, coming from the pen of Dr. Hutchison, who has had such a rich experience in this department at his clinic in Great Ormonde street, London. The work is very completely illustrated, is systematically arranged, and the type is easily readable. It should find a place in the library of every general practitioner. G. H. E.

Therapeutics: Its Principles and Practice.—By Horatio C. Wood, M. D., LL. D., and Horatio C. Wood, Jr., M. D. J. B. Lippincott Co., 1905.

As evidence of the value placed upon this work by the American profession, it is only necessary to cite the fact that it has passed through twelve editions during the past thirty years of its existence. The arrangement of drugs according to their therapeutic uses is one that appeals to the practitioner, who often desires to try different medicines that have about the same action. The present edition includes the changes contained in the 1900 revision of the Pharmacopeia, together with descriptions of a number of the newer synthetic drugs, especially the diuretics and hypnotics. Unfortunately, in this as in others of our text-books, too little attention has been paid to treatment by other methods than the use of drugs. Dietetics, massage, gastric lavage, the hot air bath, passive congestion, hydrotherapy, and electricity are all passed over in less than 60 of the 900 pages of reading matter. To any one familiar with

the tendencies of modern therapeutics, such a division of space seems very unequal. The importance of dietetics is too well recognized to need further comment; and the ignorance of the profession, as a whole, on such subjects as massage and hydrotherapy opens the way for irregular practitioners, who sometimes accomplish much by methods of which the regular is ignorant. These subjects certainly need a more complete discussion in a text-book on therapeutics. A. W. H.

Christianity and Sex Problems.—By Hugh Northcote, M. A. Crown octavo, 257 pages. Bound in extra cloth. Price, $2.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry street, Philadelphia, Pa.

This is a work of nearly 250 pages, the object of which is to adjust the relations between Science and Christian thought in the region of sexual ethics. The work consists of a series of essays on various phases of sexual feeling under normal and pathological circumstances. Such subjects are discussed as the origin of the feeling that sexual desire and gratification is immodest, sexual vice in childhood, the sexual aspects of co-education, neo-Malthusianism, the moral aspects of fornication, the regulation of prostitution, the hygiene of marriage, divorce, and the Gospel and sex relations. Most of these are subjects which possess medical aspects, and about which the physician should have some knowledge. They are subjects which lie on the borderland between the physical and the spiritual. In many instances it is difficult to decide whether patients who are suffering from certain forms of sexual disorder are most in need of the physician or the priest. For this reason accurate knowledge on the part of both professions is desirable. The whole question is one which the normal man always approaches with a certain amount of hesitation, and one whose treatment requires skilful handling lest it do more harm than good. In the work under consideration the matter is treated scientifically, and for that reason the book may be safely recommended to those interested in the subject. G. B.

Hygiene and Public Health.—By B. Arthur Whitelegge and George Newman. New edition, revised, enlarged, and in great part rewritten. Chicago. W. T. Keener & Co., 1905.

There is no branch of medicine more important than that relating to the prevention of disease, and there is no branch more shamefully neglected in the medical schools of the United States. It is true that the bacteriological aspect of hygiene is usually pretty well covered in our medical schools, but aside from this the subject is usually delegated to a junior lecturer, often one devoid of practical knowledge of hygiene, and the treatment of this important subject is usually perfunctory in the extreme. So far as we know not more than three or four medical schools in North America have a properly equipped hygienic laboratory, and but one gives a degree indicating that the possessor is capable of serving in the capacity of a public health officer.

The book of Whitelegge and Newman serves to emphasize the above statements in that it reflects all through its pages the thorough manner in which the public are protected in these matters in Great Britain. The manual covers the usual ground, and considers air, water, food, soil, buildings, schools, hospitals, infection, disinfection, and (in outline) the chief infectious diseases. Throughout the book the language is clear, the statements are brief and to the point and figures and tables illustrate points which may be rendered more lucid in this way. Though necessarily condensed, the information is attractively put, is practical and is free from those half-true statements which are so often seen as a result of an unsuccessful attempt to condense knowledge. Misstatements are lacking, and the book is evidently the work of men who are practical specialists in the subject which they treat. The book can be highly recommended to both students and practitioners as an excellent outline of a subject which deserves to be much more widely and carefully studied. G. B.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition.—Part VII. Diabetes Mellitus; its Pathological Chemistry and Treatment.—By Prof. Dr. Carl von Noorden, Physician-in-Chief to the City Hospital, Frankfort a. M. Edited by Boardman Reed, M. D., Physician to the Samaritan Hospital, Philadelphia. Translated by Florence Buchanon, D. Sc., and I. Walker Hall, M. D. New York. E. B. Treat & Co., 1905.

Students of medicine in this country may well congratulate themselves that the opinions of so great an authority as von Noorden have been made available to the English reading public. Perhaps no man now living is so well qualified to discuss the problems of diabetes. For many years a leader in research, surrounded by a very able corps of assistants who unceasingly toil over the collateral problems, having had, in addition, an enormous clinical experience, his words must carry great weight.

To read his masterly presentation of the subject is an intellectual treat. Thoroughly logical from beginning to end, the various phases unfold in natural sequence. Those who have derived their knowledge of the disease from the conventional text-book article which, at best, is unsatisfactory, will find here much that is practical and helpful.

It will be sufficient to indicate a few of the symptoms which come up for analysis. Among others, acetonuria is thoroughly discussed and its dangers pointed out; indeed, by the behavior of the acetone bodies during the withdrawal of the carbohydrates, von Noorden proposes a grouping of cases into mild and severe forms. The relation of the Islets of Langerhans to glycosuria is referred to as unproved. The toleration level for carbohydrates and the method by which it is to be determined is, perhaps, the most valuable practical point brought out. Pentosuria, levulosuria and maltosuria, as confusing factors, are alluded to. One of the most interesting chapters has to do with the reversal of the ammonia values of the urine during acidosis. The section on treatment is exceptionally full and is enriched by valuable tables. C. Q.

A Manual of Chemistry, Inorganic and Organic, for the use of Students of Medicine.—By Arthur P. Luff, M. D., B. Sc (Lond.), F. R. C. P., F. I. C., and Frederic J. M. Page, B. Sc (Lond.), F.I.C., Associate of the Royal School of Mines. Chicago. W. T. Keener & Co., 1905.

It must be apparent to every student of modern research that chemical methods of investigation are being made use of to an extent unknown in former years; in fact, it is probably true, that the most important contributions of recent times have followed their introduction. In several of our universities the growing need for workers in this field has been recognized and efforts made to equip graduates with a broader knowledge of chemistry, but there is still much to be accomplished.

Successfully to prosecute original work in biological chemistry one must needs have had fairly extended preliminary training. The methods employed to-day in this work are by no means of the simplest, nor are the results obtained to be interpreted by the mere tyro. On the contrary, the worker has need of much technical skill and experience and should, in addition, be conversant with theoretical chemistry. Inasmuch as chemical pathology is no longer a mere speculative possibility, but a fairly well developed branch of science, one which bids fair to become a potent factor in the future of medicine, it follows, that the amount of instruction given to a student in this science should be made fully commensurate with its importance.

Under ideal conditions the student would receive a full university course in chemistry before entering upon the study of medicine. In this country, however, where proprietary schools still flourish, any such preparatory training is wholly exceptional. For this reason the student is forced to attack the whole subject of chemistry, theoretical and applied, within the narrow limits of one school year. The logical outcome of such a system of instruction, as might be expected, is to crystallize in the mind of the student certain vivid reaction pictures at the expense of his power of chemical reasoning.

Of late years a demand has arisen for simple manuals of chemistry suitable for use by practitioners who wish to obtain practical information, and for the guidance of students in the smaller schools. In response to the demand a number of handbooks of practical chemistry have appeared. In many respects the little manual compiled by Luff and Page is unique among such publications. The authors have made a most admirable selection of material. The subject matter is very well arranged, important facts being emphasized by the use of heavy type. Just enough of theory is introduced to elucidate the text without confusing the student. A good working outline of the principles of volumetric analysis is given, together with tables for the systematic analysis of the metals and acids. The illustrations are clear and fairly numerous. The little book has, undoubtedly, a field of usefulness, and can be heartily recommended to those who seek practical information in compact form.

C. Q.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Andrews, Harry A., from 3402 24th st. to 1361 Valencia st., San Francisco; hrs. 1-3 and 6-7. Avery, H. L., from Pomona to 517 Fay Bldg., Los Angeles; hrs. 10-1.

Banks, Wm. H., from add. unk. to Stirling City, Butte Co.; hrs. 7-8. **Bullard, Rose T.**, from 304 S. Broadway to 1241 W. 8th st., Los Angeles; hrs. 1-4.

Cheney, Wm. Fitch, from 906 Polk st. to Shreve Bldg., San Francisco. **Creese, Robt.**, from Santa Maria, Santa Barbara Co., to Hotel Paso Robles, Paso Robles, San Luis Obispo Co.

Day, L. B., from 1025 Sutter st. to 1416 Larkin st., San Francisco. (Name changed to Lolita B. Day-Bew.) **Dwire, Dumont**, from Los Angeles to Ventura.

Ellis J. W., from add. unk. to Sunnyvale, Santa Clara Co. **Emerson, Mark L.**, from 913 Market st. to 1155 Broadway, Oakland; hrs. 2-4 and 7-8.

Ffoulkes, Bruce, from James Flood Bldg. to St. Paul Bldg., San Francisco; hrs. 2-4 and 7-8.

Grossman, Edward L., from 413½ Kearny st., San Francisco, to New York.

Harris, B. Y., from 453 Kearny st. to 521-22 Shreve Bldg., San Francisco. **Hollingsworth, Robt. B.**, from San Diego to Las Cruces, N. M. **Hull, J. Porterfield**, from Lodi to Physicians' Bldg., Stockton; hrs. 11-12 and 2-4 and 7-8. **Hund, T. J.**, from 759 Folsom st. to St. Paul Bldg., San Francisco. **Huntington, William D.**, from 1111 Washington st. to 644 18th st., Oakland.

Justice, O. M., from add. unk. to H. W. Hellman Bldg., Los Angeles; hrs. 11-12 and 2-5.

Keegan, Laurence T., from Black's Sta., Yolo Co., to College City, Colusa Co.

Lamb, Judson L., from add. unk. to Corning, Tehama Co. Longabaugh, R. D., from add. unk. to Mountain View, Santa Clara Co.

Macdonald, Geo. C., from 32 O'Farrell st. to St. Paul Bldg., San Francisco. **Madden, Thos. F.**, from add. unk. to Fresno. Maddux, C. P., from Santa Rosa, Sonoma Co., to Scotia, Humboldt Co. **Mather, S. R.**, from Starr King Bldg. to 780 Sutter st., San Francisco; hrs. 2-4 and 7-8. McClish, Clarke L., from add. unk. to Agnew State Hosp., Santa Clara Co. **McDougall, William D.**, from 97 S. 1st st., San Jose, to Cupertino, Santa Clara Co.

Nixon, Anne W., from 1434 S. Flower st., Los Angeles, Cal., to 516 E. 7th st., Sterling, Illinois.

O'Bannon, Richard W., from Hollister, San Benito Co., to 410 Parrott Bldg., San Francisco; hrs. 11-12, 2-4 and 7-8. **Ohrwall, Harold W.**, from 701 Howard st. to Dana Bldg., San Francisco. **Orr, Jane**, from 1169 Broadway to 1552 8th st., Oakland; hrs. 2-4.

Reynolds, R. G., from 734 Clement st., San Francisco, to Palo Alto, Cal.

Wahl, Hugo A., from 510 Ellis st. to 1703 O'Farrell st., San Francisco.

Young, Jas. A., from Salinas, Monterey Co., to San Pedro, Los Angeles Co.

New Names.

Adams, Paul A., 416 Byrne Bldg., Broadway and 3d st., Los Angeles, Coll. of P. and S., Columbia Univ., N. Y., '03 (C.) '05. Hrs. 11-1:30.

Adams, Z. T., (H.) La Grange, Stanislaus Co., Hom. Med. Coll., N. Y., —. (C.) '77.

Bass, Annie (H.), 1201 Buchanan st., San Francisco, Cooper Coll., '01; Hahn. Med. Coll. of the Pac., '05 (C) '05.

Byron, Wm. P., Lemoore, Kings Co., Calif. Med. Coll., '04 (C.) '05. Hrs. 10-12, 2-4 and 7-8.

Davies, B. C., 1653 W. 12th st., Los Angeles, Coll. of P. and S., Chicago, Ill., '05 (C.) '05. Hrs. 10-12 and 2-4.

Matzke, Edith H., Stanford University, Woman's Med. Coll., Pa., '95 (C.) '96.

Tower, Amasa M., Lodi, Omaha Med. Coll., '01 (C.) '05. Hrs. 1-5.

Trachman, H. J., Santa Rosa, Baltimore Univ. School of Med., '00 (C.) '01. Hrs. 10-12 and 2-4.

New Members.

Alameda County Society—**Dunn, William L.; Friedman, W. L.; Maxson, Willis H.**

Fresno County Society—**Madden, Thos. F.**

Marin County Society—**Foshay, A. W.**

Monterey County Society—**Parker, Garth; Yates, Henry M.**

Riverside County Society—**Griffith, T. R.; Keeler, Geo. D.**

San Diego County Society—**Bold, F. J.; Dunbar, F. A.**

San Joaquin County Society—**De Lappe, F. R.**

Santa Clara County Society—**Black, Howard; Gates, Morris J.; MacChesney, A. C.; Matzke, E. H.; Mosher, Clelia D.; Reynolds, R. G.; Simpson, Wm.**

Sonoma County Society—**Huffman, Ruth P.; Trachman, H. J.; Wheeler, Ira A.**

Tehama County Society—**Lamb, Judson L.**

Deaths.

Askane, Oliver P., Mountain View.
Chalmers, G. F., Niles.
Chismore, George, San Francisco.
Kelley, Thomas, San Jose.
Logan, Milburn Hill, San Francisco.
Mountain, Noble, Placerville.
Thomson, Herbert, Booneville.
Wallace, Wm. I., Hemet.
White, D. W., San Bernardino.
Wright, Aug. S., Santa Rosa.

A Correction in the Examination Report.

In the report of the results of the December examinations, published in the February JOURNAL, in the paragraph giving averages of those passed was a line which read as follows: University of Southern Cal., 1904—75 1-9; 1905—76, 79 7-9, 84, 87, 90 1-9. It should have read: University of Southern Cal., 1904—75 1-9. University of California, 1905—76, 79 7-9, 84, 87, 90 1-9. Among the figures for the California schools the University of Southern Cal. should consequently be credited with only 1 passed, and the University of California with 5 passed and none failed.

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten.
Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. IV APRIL, 1906. No. 4

NOTICE.
SPECIAL RATES TO THE A. M. A. MEETING.

Those members desiring to avail themselves of the special rate of one fare for the round trip can purchase tickets at that rate from California points to New Haven, Conn., on May 25, 26 and 27. Upon arrival at New Haven, the ticket should be deposited with the proper agent. You can then buy a local ticket from New Haven to Boston. You may travel around as you please, but your return trip must begin at New Haven not later than August 31st.

Those who cannot avail themselves of this rate, can purchase a regular 9-months' tourist ticket, which will be sold at the rate of 2 cents per mile, or about 1⅓ fare for the round trip.

EDITORIAL NOTES.

BETTER WORK.

It is certainly encouraging to note the rapidity with which many of the county societies are taking hold of the idea of more frequent meetings and more systematic scientific work. Eight or ten are now meeting from two to four times a month and several others have the matter under consideration. Most of the economic problems which confront the profession and each individual member of it, are such as may not be solved by strife, but will yield to educational development, and the sooner we learn this the sooner will the solution of these problems be apparent to us. Elsewhere we print some courses of study outlined by a county society in a distant state and they should serve as a great help to others who are working on the same general scheme. If isolation and ignorance breed strife and uncomfortable relations with others, then let us do away with the isolation by getting together, and with ignorance by careful, systematic study in the county society. This is the ideal place for such work, and there can be little doubt of the final outcome if this course is persistently followed.

THE BIG THIEVES.

That the mind of the physician is without commercial bent, is so well known as scarcely to require restatement; in the words of the "sure thing" operator, doctors and preachers are "good things." As a result of this unfortunate lack of business ability, physicians always have been and doubtless always will be, imposed upon by those gentry for whom "commercialism" is the first and the last word, and who know not the meaning of "professionalism." But every physician may take pride to himself in that, as the insurance examinations have shown, while thievery, bribery, corruption, stealing wholesale and retail have been going on for years in almost every department of the great life insurance companies except the medical, the medical examiners have gone about their work, honestly, conscientiously, faithfully, and no word of scandal has touched the name of a physician connected with an insurance company. Bear that fact in mind and then remember the disclosures of the investigating committee; remember the millions on millions of dollars shown to have been stolen from the policy holders by the McCalls, the McCurdys, the Hamiltons, the Alexanders, the Hydes, the Perkinses, the Depews and the horde of lesser thieves who were permitted, for years, to steal the policy holders' money. Remember, too, that there is every reason to believe that what has been told is only a fraction of the truth that might and should be told, and that the actual stealings and perversions of funds are probably many times the amount disclosed.

OFFICIAL INSULT.

The disclosures of such enormous graft and such unblushing robbery have naturally produced a certain feeling of distrust in the public mind, and the "big three" insurance companies find that new business is hard to get—that "suckers" are scarcer than they were—that it is not so easy to get hold of the policy holders' money to steal, as it was. Retrenchment is necessary; therefore they must retrench. How do they go about it. Do they cut down some of the enormous salaries? Do they trim the whole line of excessive "home office" salaries, commissions, expensive methods of getting business, etc.? Do they trim the agents' large commissions? One would naturally suppose that some of these things they would do, but we have not heard of any such. No; they ask the physicians of the country to put their hands into their own scantily filled purses and pay the deficit. They retain the fat

officials and fatter salaries, but they ask you to pay out of your mite, the losses caused by their past official stealings. Again it is the doctor who pays—through the nose. The doctor is glad to get what is given him; he is a humble beast and an uncommercial; he will swallow almost anything that he is told, if told in a convincing way; he is long suffering; he is used to working hard and often getting nothing for his services, therefore he will be glad to be assured of even a pittance. Therefore the Equitable and the Mutual recently decided to join the New York Life in the payment of cheap fees, and have notified all their examiners that the fee for examinations will hereafter be $3.00 for all policies of $3,000 or less. Is not this asking you to pay for the other fellow's defalcation? The Equitable says this action is taken "by order of the President." The "President" is one Paul Morton, formerly of the Santa Fe, where, in an official capacity, he entered into illegal contracts with other roads and later only escaped criminal prosecution through the "strenuous" clemency of Mr. Theodore Roosevelt! Mr. Morton is receiving $60,000 (or is it $80,000) a year salary; possibly he earns this huge amount by thinking up ways and means for skimping the physicians, or in shaving the policy holders in ways that are not within the reach of the law; he certainly cannot be worth that amount unless it is for some such reason. Are you going to quietly submit to this dictation by the "honorable" (Heaven save the mark!) president of the Equitable, the one-time dishonest railroad official and whitewashed ex-cabinet member? Refuse to do any examining for any company that does not pay $5.00 for your work. Stick to it; be honest about it. And don't be sympathetic if the agent whines that he will have to pay the extra $2.00 out of his own pocket; he is making many times the amount out of each risk that you are getting and he can mighty well afford to pay the extra $2.00, if he has to! As a matter of fact, he will not have to, for the companies will come to time if you stick to your determination and let them go hang.

PROPRIETARY ASSOCIATION.

On December 7th, a letter was sent to 27 members of the Proprietary Association of America whose business is actually or ostensibly with the medical profession, asking them to please explain what they meant by holding out one hand for our dollars and whacking us through the Press Committee of the P. A. of A., with the other. The result was interesting; three wrote, in more or less temperate vein, that they were "in" for business reasons and intended to retain their membership; four have not replied; twenty have notified us that they have resigned. Elsewhere we give a list of the 27 houses and their relation to the P. A. of A., so far as indicated by all advices received to date. A certain amount of self-respect was sacrificed in writing to such houses as Chas. N. Crittenton Co.; Fellows Mfg. Co. (advertising in many "medical" journals that their preparation is a cure for consumption); Mellier Drug Co. (like peruna, this concern tried to reap a golden harvest from the yellow fever epidemic and advertised, in reading notices, that their nostrum was a cure for yellow fever); Micajah & Co.; Katharmon Chem. Co. (make a cod liver oil preparation not containing any oil!). Look over the list.

LET US HELP.

Other things being equal, it is no less than right that we should lend the weight of our influence and give our patronage to those manufacturers who indicate a desire and an intention to help us in the present fight against fraud, secrecy and graft in the nostrum business. Is it not so? Then just stop and think when you need plasters, etc., that Seabury & Johnson are members of the Proprietary Association of America (the representative organization of the "Great American Fraud") and Johnson & Johnson *are not.* These two houses make practically identical lines of goods; why not give the preference to the house that is with us as against the house that contributes to the support of an organization representing so many frauds? Why not remember to ask for and buy Johnson & Johnson's goods? You will be doing the right thing and helping in the fight.

GOOD BILL.

A bill to improve the condition of the Medical Corps of the United States Army has been introduced into Congress. It is a very good bill and has the approval of the Secretary of War and the President. It does away with contract surgeons and increases the regular force to a number almost sufficient to meet the requirements of the service. Write to your representative and urge the passage of the bill. Also write to Mr. Julius Kahn, who is a member of the committee on Military Affairs.

THE NEXT LEGISLATURE.

There are some bills which we may safely assume will be introduced into the next legislature, and we might as well think them over and begin to prepare for them. Without doubt one of them will be a bill requiring the full formula to be published upon the label and on the outside wrapping of all "proprietary" or "patent medicines." A bill of this sort has been introduced in the legislature of every state meeting this winter, and we may profit by the experiences of the bills in these states. Opposing the passage of such a bill we find, first, practically all the newspapers, on account of the "red clause" (this we republish for your information); second, the Proprietary Association of America; third, the whisky trust and wholesale whisky dealers, for many large manufacturers of whisky are

financially interested in some of the biggest selling "patent medicines"; fourth, the druggists and their Association, the National Association of Retail Druggists, commonly known as the "N. A. R. D." In passing we may respectfully call the attention of the W. C. T. U., the Y. M. C. A., the Y. W. C. A., and the various woman's clubs in the state to these facts and suggest that they begin NOW to plan an active campaign in support of the bill and to counteract the vast influence of the disgraceful elements which will oppose it. And what shall we do? The opposing factor nearest to ourselves is the "N. A. R. D.," and its individual members, the retail druggists. In other states they have shown that their desire to participate in criminal fraud is greater than their sense of professionalism, common honesty or self-respect; will they exhibit a similar attitude in California? Presumably, they will, if uninfluenced. It would therefore seem to be a paramount duty, and one of urgency, that we at once arrange for conferences with the druggists throughout the state—each county taking care of its own territory—and endeavor to come to an understanding on this matter. If an amicable understanding can be reached, so much the better, for fights are unpleasant, to say the least. It would be a comparatively easy matter for the physicians of the state to make themselves absolutely independent of the pharmacists, for it does not require a great deal of capital to equip a purely prescription drug store, and there is hardly a community in the state in which the physicians could not get together, subscribe the necessary capital and operate a co-operative drug store. Whether or not the local members of the N. A. R. D. will have sufficient influence with their organization to induce it to keep "hands off," is a question, for it has been many times intimated that the controlling element in the N. A. R. D. entertains the friendliest of relations with some of the biggest and worst of the fraudulent nostrums. Indeed its publication has several times since *Collier's* exposure, endeavored to bolster up the peruna fraud.

ATTACK OUR LAW.

Indeed, it is quite possible that this same N. A. R. D. may do again what it did at the last legislature, and introduce, as a retaliatory measure, a bill emasculating our present law regulating the practice of medicine. It may seem almost incredible that an organization of druggists would be so gratuitously insulting, but the fact is one of record and was even bragged about in their official publication. The easiest way of protecting the people of the state against such outrages is to make sure of the attitude of your prospective representatives before they are nominated, if possible, and certainly before they are elected. A question of political party should have no weight with you as against the protection and safety of the people, who are your professional charge. That they do not know enough to protect themselves and hence take but little interest in these matters, only makes it the more your duty to protect them from their own ignorance. For these and many other reasons, it should be your duty to take an interest in the political situation in your county and to make sure that every effort is made to send to the legislature men who understand the importance to public health and to the safety of the people, of properly safeguarding them from quacks and ignorant pretenders. They should be educated, too, on the more important facts regarding the "Great American Fraud"—the "patent medicine"—and the "red clause" control of the press. Fortunately, there are a number of country papers in this state that are free from the "patent medicine" yoke. We have noted *The Californian* (Eureka); the *Tulare County Times*, the *Fresno Daily Republican*, the *Ventura Free Press* and the *Pasadena Daily News*. Possibly there are others that have not come to our attention. It may seem a long time from now to next January, but the fight will be on your hands before you know it.

Where is the freedom of the press? Practically every newspaper in this country has been bought by the alcoholic nostrum manufacturers and has signed advertising contracts with them which contain the following clauses:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See *Collier's Weekly*, Nov. 4, 1905.)

PURE FOOD.

The "Pure-Food Bill," the eighteen-year-old joke of the "Criminal Senate," has at last passed that august assemblage of official grafters and trust representatives! At the time of writing it is impossible to say whether the bill was emasculated before passage or not, but rumors are that it got through in fair shape. The fight will now be in the House and each and every one of us should write to his representative and demand that this effort to compel the substitution of simple honesty for murderous greed, be adopted.

FRAUDS IN MEDICINES.

There are at least as many fraudulent nostrums "worked" upon the medical profession alone as there are of the sort that appeal directly to the laity. From time to time we shall endeavor to follow the work of the A. M. A. and comment on these things. In the meantime, we would suggest that you ask every detail man who succeeds in getting to you and then contributes to

your education, whether his preparation has been approved by the Council on Pharmacy and Chemistry of the A. M. A., and if so, just ask to see some documentary evidence of that fact; lying is easy and cheap. For instance, the Dios Chemical Co., advertises (or did) that its nostrums have been approved by the Council on Pharmacy and Chemistry—or implies as much. As a matter of fact, they have *not* been so approved, and doubtless would not be "in a thousand years!"

A TYPICAL EXAMPLE.

Apropos of the foregoing, we cannot resist a few words of comment anent a concern quite recently "sprung" upon us. Detail men have been visiting various parts of the state leaving with physicians a beautifully printed pamphlet, entitled, in letters of gold, "The Balance Wheel of Life Metabolism." If we dip into this scientific monograph—we should be grateful to the philanthropic "manufacturers," the American Apothecaries Co., for placing so many pearls of wisdom in our hands without price—we will soon realize what fools we have been all the years of our life. We learn that "Elimination is aided by 'salvitæ'"; that "Salvitæ dissolves tenacious mucoid secretions which often adhere to the alimentary canal"; that "It meets the pressing need of the majority of patients who consult a physician at his office." Just think of that. All that such a majority of your patients need, is one remedy—"salvitæ"! And all these years you have been ignorant of how to really care for your patients! Studying this valuable treatise more carefully, we learn that "salvitæ" is specially suited to the "uric acid diathesis"; and also "specially indicated in cases of constipation with debility"; that it is a "genuine tonic laxative"; that it relieves or cures—generally cures—myalgia, neuralgia, constipation, Bright's disease. "It invigorates the cells it cleanses;" "it preserves the life of cells," "Salvitæ prevents premature fossilization of the individual," for which the Lord be praised! Here have we been living a life of fear, dreading our approaching fossilization and not knowing that the philosopher's stone had been found! What is this wonderful life saver and anti-fossilization agent, "salvitæ"? Merely a shot-gun effervescent saline cathartic!

"OUR CENSORIOUS CONTEMPORARIES."

Under this alliterative title our esteemed contemporary, the *New York Medical Journal* (incorporating several ether once decent medical publications, now alas! all managed by the same advertising agency) chooses to class us together with the *Journal of the American Medical Association*, the CALIFORNIA STATE JOURNAL OF MEDICINE, *The Pennsylvania Medical Journal*, and the *Maryland Medical Journal*. At any rate we are not ashamed of being in such company. Had we been classed with some other publications, that could be mentioned, we should not have been especially thankful. As to the imputation of "censoriousness," we are inclined to be thankful for that too. Certainly, if our esteemed contemporary is so anxious to be advertised that he is thankful for being held up to the scorn of good men for his attitude in regard to the advertisement of nostrums, we might be thankful to be advertised as opposed to such a course. Tillotson said that: "Censoriousness and sinister interpretation of things, * * * render the conversation of men grievous and uneasy." It seems that we have helped to render our esteemed contemporary quite uneasy. Albeit very thankful. His peculiar attitude reminds us of an old story of a hunting party who had passed a rule that the first man who was "censorious" with regard to the cooking would have to do the cooking himself. The cook for his part was "tired of his job," and, as no one was willing to relieve him, began putting on the table the most unsavory mixtures; which, however, were received with unfailing commendation. At last he skilfully abstracted the center of the yolk of an egg and supplied its place with red pepper. The egg, of course, appeared as though nothing had happened to it. When it was bitten into, however, the biter jumped up into the air with a loud exclamation, that we need not quote verbatim, adding, nevertheless, as soon as he could recover his breath, "But I like it, I like it very much."

So our contemporary "likes" our gentle criticisms and as he watches his advertising pages grow, makes the condemnatory remark about the profession, at least about that portion of it that is disposed to be honest and decent, that the late Mr. Vanderbilt once made about the public.

He reminds us of a juggler who is trying to keep five or six balls in the air at once, while he balances a sword on the end of his nose and sings Annie Laurie. He says himself in an editorial, under the title, "Mysticism in Medical Practice," immediately preceding the one which has called forth these remarks, "There are patients who will not endure verbal jugglery on the part of a physician," from which it is plain that he believes that the best of the laity have both more sense and more honesty than the profession. While he assumes to be the moral, intellectual and professional guide, philosopher and friend of all doctors whatsoever, his hands are red with the blood of decent medical journalism, which he is doing his best to murder. In an editorial in his issue of January 27, 1906, he inquires whether the doctor is an "easy mark" and states that "business men commonly regard the doctor as little more than an amiable fool where the investment of money is concerned." Is not subscription to a medical journal an investment of money?

Could it be possible that the advertising agency that controls our esteemed contemporary is composed of business men?

The doctor may be an "amiable fool," decency in medical journalism may be dead and calling nostrums, quacks and fakirs by their right names may be "censorious." We believe, however, that there is something to be gained beside the approval of our own consciences by standing up for decency and common sense in the conduct of medical journals. If our neighbor really is thankful for our criticisms of his methods we will take care that he has much to be thankful for.—*Journal of the Med. Soc. of New Jersey.*

PROPOSED AMENDMENT TO CONSTITUTION.

Second Publication.

To amend Article X by adding after the second sentence the following:

The fiscal year of the Society shall be from January 1st to December 31st. The number of members in good standing in each component society on the first day of January of each year shall be taken as the basis for the assessment for that fiscal year, as fixed by the House of Delegates.

NOTICE.

The next Annual Meeting of the State Society will be held in San Francisco, the entire week, beginning Tuesday morning, April 17, 1906. The Rocky Mountain Interstate Society, the Pacific Branch of the Urological Society, and of the Ophthalmological and Oto-Laryngological Society will combine with the general and section meetings of the State Society. The scope and interest of our meetings will be thereby, very much enhanced.

The Committee on Scientific Work would particularly draw attention to the series of Clinics which have been arranged for the mornings of Friday, April 20th, and Saturday April 21st, at the various hospitals, which includes: Syphilis in all its manifestations, Tropical Diseases, Medical Cases of interest, general Operative Surgery, Genito-Urinary Surgery (Cystoscopy Ureteral Catheterization, etc.,) Eye, Ear, Nose and Throat Clinics. An abundance of rare and interesting material has been collected at considerable effort, and we would especially urge members to arrange to continue their stay over the morning of Saturday, April 21st.

The Committee would further announce that the following time limit has been placed on all contributions: Orations, thirty minutes, Scientific Papers, fifteen minutes, Discussion, five minutes. A bell will be rung in each case, one minute before the time expires.

Members finding subjects of interest in the papers enumerated below, will please send their names and choice of subjects to the Chairman of the Committee, that they may be called upon to enter into the discussions.

Committee on Scientific Work—Harold Brunn, M. D., chairman, 1312 Van Ness Avenue, San Francisco; C. M. Cooper, M. D., Philip King Brown, M. D., Philip Mills Jones, M. D., W. Francis B. Wakefield, M. D.

N.B.—The titles of many papers from the Rocky Mountain Interstate Society have not been received. The order of papers and time of presentation in the following program is therefore entirely provisional.

RAILROAD RATES.

The following arrangements have been made in regard to railroad rates for the April meeting:

A round-trip rate of one fare and a third on the receipt certificate plan; going tickets on sale ten days prior to the opening date of the meeting. Be sure and take a receipt-certificate when you buy your ticket to San Francisco. If you buy the lowest fare first-class limited through trip ticket, no stop over will be allowed; no stop over will be allowed in any event on the return trip. If you wish to stop over, buy an unlimited going ticket, which will cost a little bit more than the strictly limited ticket. The receipt certificate must be signed by the Secretary in order that you may secure the one-third return fare. Returning tickets may be purchased on or before Tuesday, April 24th.

PROVISIONAL PROGRAM.

Tuesday Morning, April 17th.

General Session, 10 A. M.

(1). Address of Welcome; Dr. Wallace I. Terry, Pres. San Francisco Co. Med. Soc. (2). Address of the President; R. F. Rooney. (3). Report of the Committee on Tuberculosis; F. M. Pottenger. (4). Remarks from Committee on Medical Legislation and Education. (5). Remarks from Members of the Board of Examiners.

Tuesday Afternoon, April 17th.

Section Meetings.—2 P. M.—Medicine, Pediatrics and Obstetrics. Surgery and Gynecology. Urology, Syphilis and Skin Diseases. Eye, Ear, Nose and Throat.

Medicine, Pediatrics and Obstetrics, 2 P. M.

(1). What is Rheumatism; Woods Hutchinson. (2). Effects of Saline Mineral Waters on Diseases of Metabolism and Nutrition; L. D. Meade. (3). Diet and Hydrotherapy in the Treatment of Rheumatic and Gouty Conditions; Robert Crees.

Discussion opened on three above papers; A. J. Sanderson.

(4). Clinical Estimation of the Viscosity of the Blood; George E. Ebright.

Tuesday Afternoon, April 17th, 2 P. M.

Surgery and Gynecology.

(1). Total Gastrectomy, with Report of a Case; Wallace I. Terry. (2). General Enteroptosis; J. Henry Barbat. (3). Liver Infection from Appendicitis; W. S. Thorne. (4). Early Diagnosis of Extra-Uterine Pregnancy; D. A. Stapler. (5). The Present Status of the Osmic Acid Treatment of Neuralgia; Thos. McCleave.

Tuesday Afternoon, April 17th, 2 P. M.

Joint meeting of the Pacific Coast Urological Association with the Genito-Urinary, Syphilis and Skin Section of the State Society.

(1). "New Aphrodisiacs"; Dr. V. G. Vecki, San Francisco. (2). Further Report upon the Surgery of the Prostate Gland for Prostatic Obstruction in the Old, based upon Personal Observation in 140 cases of Prostatectomy; Granville MacGowan, Los Angeles. (3). Case of Lichen Planes involving the Bladder; George S. Whiteside, Portland. (4). Latest

Statistics in Perineal Prostatectomy; George Goodfellow, San Francisco. (5). Indications and Contra-Indications for Lavage of the Pelvis of the Kidney; Dr. M. Krotoszyner, San Francisco. (6). Tumors of the Bladder; A. B. Grosse, San Francisco.

Tuesday Afternoon, April 17th, 2, P. M.

Joint session of the Eye, Ear, Nose and Throat Section with the Pacific Coast Ophthalmological and Oto-Laryngological Society.

(1). Eleven Cases of Sympathectomy for Glaucoma; Henry La Motte, Salt Lake City. (2). Student's Eyes; W. F. Snow, Stanford University. (3). An Original Method of Making Tropical Applications to the Mucous Membrane of the Naso-pharynx by Means of the Tongue; Hamilton Stillson, Seattle, Wash. (4). Report of a Case of Double Spontaneous Senile Cataract, with Posterior Displacement of Both Lenses; P. A. Jordan, San Jose, California. (5). Xanthelasma Palpebrarum; Thos. J. McCoy and A. C. Rogers, Los Angeles, Cal.

Wednesday Morning, April 18th, 9 A. M.

Symposium on "Anesthesia."

(1). Preparation of Patient—Method of Administration and After Treatment in Normal Cases; Dr. Mary Botsford. (2). Complications (early and late) of Anesthesia—Recognition, Prevention and Treatment; Dr. Frank Bullard. (3). Spinal Anesthesia; Dr. A. W. Morton. (4). A Plea for the More General Use of Local Anesthesia; Dr. T. C. Edwards. (5). Scopalmine-Morphine Anesthesia; Dr. W. Winterberg; (6). Choice of Anesthetics; Dr. Henry L. Parrish.

Wednesday Afternoon, April 18th, 2 P. M.

Medicine, Pediatrics and Obstetrics.

(1). Differential Diagnosis between true Sciatica and Diseases of the Urethra and Adnexa; G. S. Peterkin, Seattle, Wash. (2). An Instance of willful Deception in a case of Hysteria; E. D. Twichell, Sacramento. (3). Some unusual cases of Sepsis; W. W. Roblee, Riverside. (4). Some observations on the treatment of Diphtheria, based on work in the Contagious Wards of the San Francisco County Hospital; Langley Porter and Henry H. Lissner, San Francisco.

Wednesday Afternoon, April 18th, 2 P. M.

Section in Surgery and Gynecology.

(1). Hernia of the Bladder through the Femoral Ring; Chas. Levison. (2). Spasmodic Torticollis; P. C. H. Pahl. (3). Considerations relating to the Ulna in Colles Fracture (Illustrated); H. M. Sherman. (4). Bennett's Fracture; Raymond Russ. (5). Static Deformities of the foot, with their Clinical Significance; Saxton Pope.

Wednesday Afternoon, April 18th, 2 P. M.

Joint Meeting of the Pacific Coast Urological Association with the Genito-Urinary, Syphilis and Skin Section of the State Society.

(1). A combination of Syphilis and Epithelioma of the Tongue; D. W. Montgomery and H. M. Sherman. (2). Aetiology and Recent Experimental Work in Syphilis; Albert M. Grosse. (3). Alopecia Areata; Alexander Garceau.

Wednesday Afternoon, April 18th, 2 P. M.

Joint Session of the Eye, Ear, Nose and Throat Section with the Pacific Coast Ophthalmological and Oto-Laryngological Society.

(1). The Diagnosis of Syphilis of the Throat objectively; H. H. Look. (2). Subhyaloid Hemorrhage; C. S. G. Nagel. (3). Mastoiditis and Sinus Thrombosis; George H. Powers. (4). Remarks on Radical Faucial Tonsillectomy; Henry Wagner. (5). General Diseases as a cause of Diseases of the Eye; M. W. Ward.

Thursday, April 19th, A. M.

Symposium—"Stomach Conditions."

(1). Some Factors that influence the Secretion and Motility of the normal Stomach; Dr. A. W. Hewlitt. (2). Diagnosis of Diseases of the Stomach; Dr. L. G. Visscher. (3). Indications for Surgical interference in Stomach Diseases from the Physician's standpoint; Dr. George L. Cole. (4). Indications for Surgical interference in Stomach Diseases from the Surgeon's standpoint; Dr. DeBarth Shorb.

Thursday Afternoon, April 19th, 2 P. M.

Medicine, Pediatrics and Obstetrics.

(1). Acute Suppurative Otitis media in childhood; Sanford Blum. (2). Report of 25 cases of Tuberculosis, treated with Intravenous Injections of Koch's Tuberculin; M. Rothschild. (3). Primary cause of Repair of Laceration of the Cervix; Adelaide Brown. (4). Statistics in some cases of Childbirth treated on the Dispensary Plan at the San Francisco Maternity; A. B. Spalding.

Thursday Afternoon, April 19th, 2 P. M.

Surgery and Gynecology.

(1). Conservative treatment of Hip-Joint Diseases; S. J. Hunkin. (2). An Analysis of the Different Methods of Replacing the Congenitally Dislocated Femoral Head; J. T. Watkins. (3). Coxa Vara; Ethan H. Smith. (4). A new method for amputating the Thumb; Julius Rosenstirn. (5) A Case of Primary Tuberculosis of the Kidney with Nephrectomy; John C. Spencer.

Thursday Afternoon, April 19th, 2 P. M.

Joint Session of the Eye, Ear, Nose and Throat Section with the Pacific Coast Ophthalmological and Oto-Laryngological Society.

(1). Infectious Sinus Thrombosis without Symptoms with report of a case; C. F. Welty. (2). A new Giant Eye-Magnet with Demonstrations; A. Barkan. (3). The Use of the Stenopeic Slit in Refraction; W. Scott Franklin. (4). Subnormal Accommodation; F. B. Eaton.

Thursday Evening, April 19th, 8 P. M.

Symposium—"Borderline Conditions of Lung and Pleura."

(1). Tumors of Lung and Pleura; Dr. Wm. Ophuls. (2). Diagnosis of Lung Conditions requiring surgical interference; Dr. George H. Evans. (3). Pleural Effusions; Dr. Wm. Watt Kerr. (4). Problems of Lung Surgery; Dr. Dudley Tait. (5) Diagnostic value of X-Ray in Chest Conditions. (Stereopticon Demonstration); Dr. W. Lehmann.

Friday Afternoon, April 20th, 2 P. M.

Joint General Session with the Rocky Mountain Interstate Society.

(1). Address by President of Rocky Mountain Interstate Society; Dr. Edward Jackson, Denver, Colo. (2). The Pioneer Physicians of California from the earliest Spanish times to the gold days; Irwin N. Frasse, San Jose. (3). Medical Defense; W. S. Fowler, Bakersfield. (4). Compulsory Registration and Fumigation in the Prevention of Tuberculosis; George H. Kress, Los Angeles. (5). The Social Evil, its cost and control; George H. Aikin, Fresno.

Friday Morning, April 20th.

Surgical Clinics, 9 A. M.

General Operative Surgical Clinics. Genito Urinary Clinics. Orthopedic Clinics. Eye, Ear, Nose and Throat Clinics.

At the Following Hospitals.

City and County Hospital. Lane Hospital. German Hospital. St. Francis Hospital. Children's Hospital. Southern Pacific Hospital. United States General Hospital, Presidio.

Saturday Morning, April 21st.

Medical Clinics, 9 A. M. City and County Hospital.

(1). Syphilis in all its manifestations. (2). Tropical Diseases with microscopical exhibit of Specimens. (3). Rare and interesting Medical Cases.

THE MOTOR COMPLICATIONS OF HERPES ZOSTER.

By ALBION WALTER HEWLETT, M. D., San Francisco.

THE eruption of herpes zoster, which consists of vesicles upon inflamed bases, is characterized mainly by its limitation to the portion of skin that is supplied by the affected spinal ganglia. Head[1] distinguishes two forms of zoster. The first is merely a symptom of some more general nervous disease and it is called, therefore, symptomatic zoster. The second is a disease *sui generis* and has been termed acute specific zoster. This latter is characterized by the presence of fever, together with the general symptoms of an acute infection, by a self-limited course, by the tendency to occur in epidemics, and finally by the fact that one attack confers upon the patient a relative immunity to future attacks. These data serve to place this form of zoster among the acute infectious diseases. Anatomically it is characterized by an acute hemorrhagic inflammation of the posterior, sensory, nerve-root ganglia.

As might be expected, the motor lesions associated with symptomatic zoster are numerous and varied. For example, in myelitis the skin supplied from the upper level of the lesion may be the seat of a zoster. In spinal caries zoster may occur at the level of the gibbus; zoster is not an infrequent symptom of tabes dorsalis and of dementia paralytica [2]; it may accompany hemiplegia[3]; and finally it may follow tumors or traumata of the central nervous system. It is sometimes very difficult to determine whether the primary lesion has actually caused the zoster or whether it has merely opened the portals for an attack of the acute specific form of the disease. In some cases, however, the two forms of the disease are easily distinguishable. For example, when the zoster recurs repeatedly, or when it exhibits a bilateral distribution, we may exclude with some probability the specific form of the disease; for only very rarely is this either bilateral or recurrent. As an example of the association of paralysis with symptomatic zoster, I may cite a case that came under my observation at the New York Hospital.

Case I. A young man, on diving into shallow water, struck his head with considerable force. He stated that he did not become unconscious immediately but that he was simply unable to move either his arms or his legs. In this condition he sank, became unconscious, and was only rescued after being in the water for about five minutes. When he regained consciousness about twenty minutes later, he could move his legs but his arms were completely paralyzed. After 30 minutes more the power began to return to his arms. The next day, when he was admitted to the hospital, his arms were still very weak and were not under complete voluntary control. On each arm, between the elbow and the shoulder, was an area over which the sensations of pain and temperature were lost while the tactile sensation was unimpaired. Three days after the injury, a bilateral cervical zoster appeared, involving the skin distribution of the third and fourth cervical segments. This healed rapidly, the patient regained control over his arms, the sensory disturbances gradually cleared up, and he left the hospital ten days later practically well. The nature of the accident, the sudden onset of the paralysis, the dissociated loss of cutaneous sensation, the favorable outcome, all favor the diagnosis of a hemorrhage into the cervical cord. The zoster was of the symptomatic type, for it followed the injury directly and it was bilateral.

We now turn to the consideration of the motor disturbances that may be associated with the specific form of zoster. *A priori* it would seem very probable that an inflammation of the sensory ganglion might spread from there to the nerve itself and that the involvement of the motor fibers might lead to a paralysis of the muscles supplied by the affected nerve. As a matter of fact, however, very few cases have been reported which would fall in this category. Yet we must remember the great frequency with which zoster affects the trunk, about 76 per cent of Head's cases[1]. The paralysis of a single motor nerve in this region is not easily recognized and quite possibly it occurs far more frequently than a study of the literature would lead us to believe. I have been able to find only one case reported in which the muscles of the trunk were paralysed after a zoster. This patient[12] was a woman, sixty years old, in whom a lumbar zoster was followed by a paralysis of the abdominal muscles on the same side.

Next in frequency to the body zosters come those of the face and neck, which will be discussed later. Finally, rarest of all, come the zosters that affect the extremities. If we take into account the rarity of these, it would seem that motor complications are here relatively common. I have references to some eleven cases which belong with more or less certainty to this class[4 5 6 7 8 9 10 11]. For example, Walter's[11] patient, a man fifty years old, was attacked with zoster of the right arm and eight days later with a paralysis that apparently involved the circumflex and musculo-cutaneous nerves. Hardy's[5] first patient had zoster along the course of the sciatic nerve which lasted some twenty days with remissions and which was followed a month later by a complete atrophic paralysis of the muscles of the calves and of the outside of the leg. Joffrey's[7] Case I showed an atrophic paralysis of the small muscles of the hands subsequent to a zoster of the shoulder. Other cases placed in this class are of a more doubtful nature. Thus Ebstein[21] questions the paralysis in the cases reported by Broadbent[4] and Handfield Jones[8]; Schwimmer's[10] patient developed his symptoms after an injury to the shoulder and the zoster may have been of the symptomatic type; while the abstracts of Magnus' and Hartmann's cases that are available to me are not sufficiently complete to allow me to classify them accurately.

Herpes about the face and neck is more frequently associated with paralysis than is herpes of any other part of the body. These paralyses are of especial interest for the reason that the motor nerves affected do not coincide with the sensory nerves. These paralyses may be divided into (1) ocular paralyses subsequent to herpes zoster ophthalmicus, (2) facial paralysis following herpes of some division of the fifth nerve, (3) facial paralysis preceding herpes zoster of the fifth nerve, and (4) facial paralysis as a sequel to zoster of the neck.

The first of these, the ocular paralyses, have been thoroughly discussed by the oculists[13 14] and it is therefore unnecessary to attempt an exhaustive discussion of this subject. According to Wecker (cit. in[14]), ocular paralyses of some sort complicate about seven per cent of all cases of zoster ophthalmicus. The most frequent of these paralyses are those affecting the third cranial or oculomotor nerve. This nerve may be paralysed in its entirety or in any of its component parts. Thus the internal ocular muscles may be paralysed alone; or the external muscles supplied by this nerve may be paralysed, or the levator palpebræ may be alone affected, etc. Paralysis of the sixth cranial nerve, the abducens, is more uncommon; while rarest of all the ocular paralyses are those that affect the fourth or trochlear nerve.

The second of the above groups comprises those cases in which a facial paralysis follows a herpes zoster of some portion of the skin supplied by the fifth nerve. I have been able to collect twelve such cases from the literature. The general history of these is as follows: herpes zoster of some division of the fifth nerve, usually the first, followed within a few hours to a few weeks by a paralysis more or less complete of the seventh nerve on the same side of the face. In Murphy's[21] case and in Caspar's[15] case, the paralysis affected the facial nerve on the opposite side of the face. In Truffi's[22] case the second and third divisions of the fifth nerve were affected, in Tay's[22] case the first and second divisions. In Montgomery's[20] case, the facial paralysis that followed an herpes ophthalmicus, involved only the uppermost fibers of the seventh nerve, i. e., those supplying the right frontalis muscle.

The third group comprises those cases in which the facial paralysis precedes the facial zoster instead of following it. Four such are on record [25 26 27 28]. One of these[28], however, followed a severe injury to the skull, probably a fracture, and should therefore be classed rather with the symptomatic zosters. In Eichhorst's[25] case, the most typical one of this group, the herpes appeared four days after the facial paralysis and involved the lower half of the right ear, the external auditory canal, and the right side of the tongue and hard palate. The sense of taste and the movements of the uvula were not affected. In Tryde's Case III[27], the herpes did not appear until three months after the paralysis and it was limited to the distribution of the first division of the fifth nerve. In Remak's case[26], the herpes appeared only on the anterior two-thirds of the tongue on the affected side.

Finally we come to the most frequent form of facial paralysis associated with herpes zoster; viz., paralysis of the seventh nerve after a zoster of the cervical region on the same side. I have recently seen two such cases and as they are fairly typical of the group I shall first report these.

Case II. Mr. S., 65 years old, was referred to me by Dr. Geo. B. Somers. On March 24, 1905, the patient had suffered from slight pain in the left shoulder. On the 27th, the skin of the left side of the neck had burned uncomfortably and examination then showed it to be red, swollen, and of a boggy consistency. At the same time, the neighboring lymphatic glands became swollen and the patient had some fever. Two days later, on the 29th, vesicles appeared on the red spots and the neuralgic pains became more severe, extending to the top of the head, to the left ear, the left shoulder, etc. The skin over the affected area had now become hyperesthetic to the touch. On April 3d, about seven days after the appearance of the red spots, the patient noticed that his left eye did not close so well as his right, and on the 5th of April, two days later, this paralysis had become definite and had extended to the muscles of the mouth. The herpetic eruption healed with some scarring but most severe neuralgic pains continued to harass the patient. These extended over the left back of the head and the whole of the left side of the neck, and were so severe that the patient could not sleep.

Physical examination on April 14th showed a pale, nervous, and rather thin patient with a left-sided facial paralysis. The left forehead and left mouth were completely immobile but the left upper eyelid could be closed slightly. No loss of taste, hearing normal, palate symmetrical. Electrical examination: facial muscles will contract when the nerve is stimulated either by the galvanic or the faradic current, though the muscles about the mouth do not respond so readily as do those about the eye. All the muscles are irritable to direct stimulation either by the faradic or galvanic currents but those on the left side are more irritable to direct galvanic stimulation than are those on the right side of the face. The cathodal closing contraction is stronger than the anodal closing contraction. Scars of the previous herpetic eruption are plainly visible on the left side of the neck and these with the hyperesthesia of the skin correspond to the distribution of the second, third, and fourth cervical segments. Enlarged cervical glands can be felt above the left clavicle.

The facial paralysis improved gradually but even now, ten months later, it has not entirely disappeared. The neuralgic pains also persisted for a long time.

Case III. A. G., an Irish woman, 60 years old, was admitted to the medical service of Dr. J. O. Hirschfelder, at the City and County Hospital, in July, 1905. Family and past history negative. Uses alcohol and coffee moderately. About one week before admission patient noticed a painful reddened area over the left side of the neck, extending down to and over the clavicle. She attributes this to some kerosene that she had dropped into her ear about a week before for buzzing in the ear. Two days after the redness appeared on the neck the skin began to turn a darker color and to peel off. She does not recollect any vesicles on the neck, but is very uncertain about the details of her illness. On the third day after the onset of the rash patient found that the left corner of the mouth did not move properly, and that the left eye troubled her.

Physical examination on July 28th showed a well nourished but pale woman with negative physical findings except for her face and neck. The left side of the face is completely paralysed, the forehead being smooth, the lower lid everted, the mouth motionless. Taste is completely lost over the anterior portion of the left side of the tongue. Hearing is equally poor in both ears. Ear drums negative. Palate at times appeared symmetrical, at other times the right side seemed higher than the left and the uvula seemed to be deflected to the right. The left side of the neck is covered with a series of reddish scars, to some of which crusts are still clinging. The skin over this area is intensely hyperesthetic; the least touch causing the patient pain. The distribution of this hyperesthesia (see Fig. 1) corresponds to the distribution of the second, third and fourth cervical segments. Patient is troubled with severe neuralgic pains in the left neck, and at times she has parasthesias, such as the sensation of pins and needles. Electrical examination: All the muscles contract when the facial nerve is stimulated, either by the galvanic or by the faradic current. A much smaller current is necessary to cause a contraction when the left facial nerve is stimulated (0.3 milliamperes for the C. C. C.) than when the right facial nerve is stimulated (0.7 milliamperes for the C. C. C.). On direct stimulation of the muscle the cathodal closing contraction is stronger than the anodal closing contraction. The contractions are much slower on the diseased than on the healthy side.

The facial paralysis gradually improved. On August 18th she could close the left eye voluntarily. On August 29th she wrinkled the forehead and closed the eye almost as well on diseased as on the healthy side; the muscles about the mouth could also be moved slightly, but taste was still defective. On October 17th taste had returned and the patient could move all her facial muscles; but those on the left side, especially about the mouth, were decidedly paretic and showed a tendency to contracture. When she was discharged, December 11th, she had improved somewhat more in the use of her face, but the paralysis was still noticeable. Throughout her stay in the hospital she was tortured with severe neuralgic pains about the left neck, and had a hyperesthesia of the skin in this region, so severe that she protected the affected skin even from the touch of her clothing. For her pains and hyperesthesia a great variety of remedies were tried, but none afforded so much relief as the freezing with ethyl chloride, that has been recommended by Morrow. The pains and the hyperesthesia were still troublesome when she left the hospital.

Illustration of case reported.

In addition to these two cases of facial paralysis following zoster of the neck, I have been able to find 23 similar ones in the literature. The condition therefore is not particularly rare. Head observed one such case in a series of 412 zosters of which about 40 were cervical zosters[1]. Greenough[35] observed one such case among 255 zosters of all kinds, but he also observed one case not included in this series. Of the histories and abstracts at my disposal, twenty, including my own, are sufficiently full to permit tabulation as to age, sex, distribution, etc.

The results of this tabulation may be summed up as follows: The ages of the patients varied from 17 to 75 years, the average being 48 years. This is in marked contrast to the average of all zosters, for

the latter are most frequent among young individuals, Head stating that the maximum incidence in his cases lay between 12 and 13 years and that over 70 per cent were under 20 years. This further illustrates the fact that herpes zoster is a far more serious disease in elderly people, for not only are the neuralgias more severe but motor complications are more liable to occur. So far as sex is concerned there seemed to be a slight preponderance of the female sex. In nine patients the left side was said to be affected, in ten the right. The location of the zoster is variously described, but in the main it seems to have occupied very much the same position as it did in my cases. In several patients it appears to have involved the face as well. The paralysis appeared in from one to fourteen days after the zoster, the average being about six days. The extent of the paralysis varied greatly; from one in which only the upper facial muscles were paralysed and the lower only slightly paretic, to others in which all the muscles were paralysed with a complete reaction of degeneration and the uvula and taste were affected. The duration of the paralysis was equally variable; for in one patient it disappeared in four days while in others it had not disappeared after months.

The cause of the motor paralyses that may accompany herpes zoster is by no means clear. We have already mentioned the possibility that the inflammation might spread from the diseased ganglion to the main nerve trunk and there affect the motor fibers with a consequent paralysis of the muscles supplied by this nerve. Yet this explanation hardly holds for the cases where a cervical zoster is followed by a facial paralysis. Two main theories have been advanced to explain such cases. According to the first the disease is comparable to a multiple neuritis and the facial nerve falls a victim to the poison on account of some special susceptibility. If this theory were correct, we should expect the facial nerve on the opposite side from the zoster to be affected just as frequently as is that on the same side. Yet such is not the case; for in all of the cervical zosters here collected the paralysis and the zoster were on the same side of the body. This explanation therefore seems highly improbable. According to the second theory, the inflammation spreads from the cervical ganglia along the cervical nerves, then from their anastomoses on to the terminations of the seventh nerve, and finally it travels up the seventh nerve and paralyses it. Cumbersome as this hypothesis is, it appears to be the most satisfactory that has been advanced thus far. One might consider, in addition, the possibility that the zoster of the neck caused a swelling of the tissues—e. g., glands, periosteum—about the ear, and that in this manner a pressure paralysis of the facial nerve resulted. Yet in some cases at least, the loss of taste locates the lesion within the petrous portion of the temporal bone; and, so far as I know, we possess no evidence that the cervical plexus supplies the structures within this bone.

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THE EDUCATIONAL TREATMENT OF THE NEURASTHENIC AND HYSTERICAL CONDITION. *

By JAMES T. FISHER, M. D., Los Angeles.

TO EDUCATE the neurasthenic out of his fears or strengthen the will of an hysterical woman requires for its successful outcome a deeper insight into and understanding of mankind than does that of almost any other bodily or mental disease. Hysteria and neurasthenia are not, as are many organic diseases, self limited, but grow little by little, taking upon themselves bigger proportions from their surroundings.

Dr. Weir-Mitchell a number of years ago made a marked advance in the treatment of these neuroses by his so-called "rest cure," requiring a combination of forced feeding, absolute rest, passive exercise and isolation. He assumed that the pathology of the disease was a faulty nutrition, and that by making "fat and blood," thus improving nutrition, the symptoms would disappear.

The rest cure is ordinarily considered a very simple method and a device very easily executed and regarded as a specific, as one would give mercury for syphilis. This is not altogether the case, and much disappointment and surprise has been experienced by its frequent failure to restore to health the neurasthenic.

This form of treatment, like other treatments, has its place, and in selected cases in the hands of the experienced has done a world of good and made both patient and doctor happy.

As to the assumed pathological principle "faulty nutrition," it is indeed a part, but only a part, and the cures effected by the rest treatment are due to other influences, largely moral and educational, rather than to the nutritive factor.

It is often the case that with gain in weight the symptoms fail to disappear, and with good nutrition marked neurasthenic symptoms are present. Increase in the amount of fat and blood does not necessarily cause the nervous system to react normally and remove the conditions of fatigue. Inanition may play its role, but other factors enter in.

On the other hand, no form of treatment which affords a prospect of anything like enduring results can afford to leave wholly out of sight an improvement of nutrition. We all know that people in good health are usually well nourished, and when they begin to break down they lose flesh. Conversely, that poorly fed and nourished people can not stand the wear and tear that the well nourished can. Imperfect nutrition tends to perpetuate the symptoms. When malnutrition is present fatigue is more easily induced, and in fatigue, symptoms are more easily excited and tend to persist.

Habit symptoms are less easily broken up, and a tendency to relapse is greater. The neurasthenic state is certainly one of fatigue, and is more easily induced when malnutrition exists.

More than the supposed scientific principles upon which any particular treatment is based are the practical results which are obtained by it. That the rest treatment has been successful in experienced hands, especially by its distinguished originator, must be accepted, irrespective of any contrary results that may have fallen to the lot of individuals. Nevertheless there are often certain drawbacks, and I may even say ill consequences of this method and certain difficulties in carrying it out.

It is obviously an expensive means of treatment. Many cases which are distinctly curable, and which later were cured, by other methods, have failed to be cured by the rest cure, though systematically employed. As I have said, while the treatment has been apparently successful in the hands of certain individuals, nevertheless it has been a failure in the hands of a great many. It is not a treatment which is calculated to give equal results independent of the personal qualifications of the physician; this largely because its fundamental principle has been wrongly interpreted, and therefore the treatment itself has been too often improperly carried out. Furthermore, many patients far from being cured, are made distinctly worse, and become more confirmed invalids than ever.

The rest cure not only makes use of improved nutrition, but employs the most powerful of all therapeutic agents in neurasthenic and hysterical conditions, namely, every moral influence that can be brought to bear by means of change of surroundings, isolation, active physical manipulation of the body, and the personal influence of the physician. When this moral influence is lost sight of and reliance has been placed by the physician upon mere physical details, looking mainly to increase in nutrition for the therapeutic effect, the result is likely to be a failure. Under such circumstances I do not hesitate to say that the rest cure has done much harm, a result which, as I have said, has been due to a misunderstanding of the real principles involved.

As a method which I consider superior I would suggest, for lack of a better name, "educational treatment," combining with this mental therapeutics and physical hygiene.

For a successful issue of the treatment of these functional nervous diseases it has been found that isolation is a necessity, is in fact a sine qua non, and that at least in severe cases, without it, the rest cure has been a complete failure. It is a matter of common knowledge that while the influence of isolation is complex, its chief mode of action is mental. This is so patent and well recognized that I need not take further time to explain its mode of action. So here is introduced a mental factor in addition to the primitive idea of making fat and blood.

It must be apparent to any one familiar with isolation in nervous and mental diseases that the effect of the mental influence can be enormously augmented or impaired by the individuality and the attitude of the attending physician.

In regard to isolation a point to be determined in the treatment is how far isolation is necessary. Only in severe cases of hysteria do I think isolation is necessary.

Separation from previous surroundings and associations, and particularly not only from all members of the household, but from the house itself, is always beneficial, and a great help to the treatment. In fact, I believe this to be the strongest moral therapeutic agent and as potent as perhaps any factor in bringing about a cure. Where there are no serious difficulties in the way of obtaining a limited isolation of this kind I advise it as a great help, but I do not think that absolute isolation is necessary or desirable. On the contrary I would suggest a systematic development of new associations, encouragement of new thoughts, of new physical and mental habits, which are best brought about not by complete isolation, but by bringing the patient in actual contact with new surroundings.

The more hysterical the individual, the more marked the mental symptoms, the more emotional the character of the disability, the greater the necessity for separation and change of all external influences.

Our effort from first to last should be to lift our complaining patient up out of the quagmire of despair and dread and supplant hope and courage in his heart. The fact that a careful examination and a bitter pill effects a cure, mainly by its appeal to the mind, in no way detracts from them as sensible therapeutic measures. Why should we fail to use the one effective measure that secures success to our neighbors, the osteopath and the Christian scientist?

The mind of the patient requires far more treatment than his body or its functions.

* Read before the Los Angeles County Medical Society, January 5, 1906.

To inspire the utmost confidence and maintain complete authority is the plan which will best avail us in overcoming his symptoms. All his symptoms are no doubt lessened and occasionally overcome by the use of physical agencies, but they are more surely eradicated by the use of the proper kind of psychical and moral treatment.

With confidence the patient is amenable to suggestion. This psychical influence can be made most effective when used through the medium of physical measures, which experience has shown to be so serviceable in the treatment of neurasthenia.

The neurasthenic is in a psycho-physical state of increased suggestibility, and furnishes fruitful soil for all kinds of suggestion. Having obtained the hearty co-operation and confidence of the patient, we endeavor to improve the mental state by dislodging the fixed ideas regarding the incurability of the disease, the apprehension and fear, the subconscious memories and ideas producing hysterical symptoms.

One of the most common mental states is the belief on the part of the patient that doing things that bring on symptoms will do permanent harm. They are most apprehensive that the fatigue incident to a little work will do irreparable harm, and prevent recovery. Hence they do less and less till finally they become bed-ridden.

Mrs. B., seen with Dr. W. L. Brown, illustrates an extreme case of hysterical neurasthenia. She suffered from dyspepsia and an abdominal neurosis or paresthesia. Careful investigation showed the dyspepsia to be mostly false and to be really a hyperesthesia of the stomach of probably the same pathology as is the common photophobia of the eyes in neurasthenia. The abdominal neurosis was also found to be of a similar character. She had lain in bed for seven months, unable to get up or eat without distressing symptoms. We made her walk and eat and do the very things she thought would kill her, with the result that now the symptoms have disappeared. The key to the multitude of symptoms exhibited by this woman almost always can be found to be apprehension or auto-suggestion.

The next point in the instruction of the patient is the interpretation of his symptoms, the explanation of the meaning of his aches and pains, of his palpitation and clammy hands. An effort is made to instruct the patient in the nature of the disease and its varied symptoms. This can ordinarily be done with an intelligent patient and his co-operation be obtained. A further endeavor is made to counteract his many fears and fixed ideas by reasoning with him, trying to suppress many of his symptoms by various therapeutic agents, sometimes electricity or drugs to assist suggestion. Many of his symptoms are the result of a habit neurosis, due to association of ideas and actions. When fatigue is a false or habit fatigue, this should be explained. It may take a little time and some patience, but the result will repay the effort.

The patient should be taught to control and inhibit his emotional state, worry, anxiety, fear and anger.

Symptoms grow like nourished plants and should be suppressed as fast as they appear by some therapeutic measure, in order that faulty habits should not get full sway and dominate the nervous system.

For the suppression of symptoms I know of no better method than by direct suggestion. It is not necessary to resort to hypnotism, but sufficient influence can be obtained in the waking state with the aid of electricity in almost any form—either the static breeze or a faradic battery. At the time the electricity is applied the suggestion is given and with some considerable emphasis, and the patient instructed in the nature of the disease and what is expected. The physical effect of the electricity is not to be entirely overlooked in suppressing painful feelings and fatigue sensations.

We must not forget that suggestion is, or may be, a double edged weapon, and may be the means of great good or be the cause of much unhappiness and misery. We may by some little word or act suggest to our patient that insomnia or discomfort may occur under certain conditions; that the disease is fatal, and thus set up a train of ideas and morbid thoughts which will be hard to overcome. In other words, it is quite possible to plant seeds that will result in artificial cultivation of symptoms.

We must educate our patient to do that which he thinks he can not do. Our attitude must be that of the trainer to the athlete. If he can not sit up without a throbbing head and heart palpitation, he must be made to do so. If he can not walk without fatigue, he must be taught to do so. If he can not eat without dyspeptic symptoms, the stomach must be taught to accommodate food without pain and belching gas. By all means do not restrict your patient because he can not do things without discomfort.

When no organic lesion exists, insist that he shall do certain things, and see that he does them.

Finally I would say that in the educational treatment of both neurasthenia and hysteria a systematic method of life should be insisted upon. That for every hour of the day some act or task be done to keep the mind of the patient busy, which acts as a strong moral and physical corrective.

In conclusion, allow me to recapitulate. The education of our patient consists in: First, the full explanation of the disease and the meaning and the significance of different symptoms. Second, the apprehension and fixed ideas counteracted by suggestion, and faulty habits corrected. Third, individual symptoms dissipated and relieved by some mechanical device—a bitter pill, electricity—all given with direct suggestion.

THE DEMONSTRATION OF DILATATIONS OF THE DESCENDING THORACIC AORTA.*

By CHARLES MINER COOPER, M. B.

THE descending thoracic aorta is the direct continuation of the aortic arch, and it traverses the posterior mediastinum. It begins at the lower border of the fourth dorsal vertebra and ends by becoming the abdominal aorta at the level of the twelfth dorsal vertebra. At its commencement it lies to the left of the middle line, but as it proceeds downward it inclines inward approaching a mesial position at its termination. Situated as it is within a bony cage and coming nowhere in contact with the ribs or sternum, it gives rise to no appreciable clinical signs. Inspection, palpation, percussion and auscultation, alike, fail to give any indication of its presence. It is thus easy to understand that lesions of this vessel are extremely difficult of diagnosis.

True chronic, apparently causeless, intercostal pain in an adult, who has wrought hard and had syphilis, should in the continuous absence of other nerve symptoms render the clinician suspicious of a commencing aneurism of this portion of the vessel.

Later pressure upon the left bronchus, the esophagus or the azygos veins may occasion symptoms which strengthen the suspicion of the presence of an aneurism, more especially if concomitant relative weakening of the crural pulses occurs.

Still later when the aneurism has so grown as to come in direct contact with the left ribs, as they arch back from the bodies of the vertebræ, the classical physical signs of aneurism are present and the recognition of the lesion becomes easy.

In what may be termed the pain stage the clinical diagnosis is problematical, in the pressure stage the diagnosis is at best clinically probable, in the third stage no reasonable doubt exists. Sometimes of course no definite stages occur and an evident aneurism of this vessel may be present in one who

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has apparently suffered from no symptoms referable to its formation and growth.

In some patients whom the writer has seen the aneurism appears to have pushed the heart forward, apparently fixing it. In such cases the superficial and deep cardiac dullness have corresponded. The anterior lung margins have moved little in respiration and the heart dullness has not changed on postural movements. In the first case, which I traced to post-mortem, I ascribed these physical signs to the huge heart that was present. But since then I have seen another patient in whom these signs are present, in whom no indication of pericardial or pleural adhesions exist and in whom careful clinical examination, which included an X-ray negative, shows a heart which is not much enlarged with a large aneurism lying posterior to it; perhaps this increase of the superficial cardiac dullness without a corresponding increase in the deep cardiac dullness, together with the constant absence of the postural heart swing may be of diagnostic service in patients with symptoms suggestive of the first or second stage of retro-cardiac aneurism.

In the California State Journal of Medicine, June, 1905, I reported some instances of abdominal aneurism and briefly referred to one case of supra-diaphragmatic aortic aneurism in which fluoroscopic examination revealed the semicircular pulsating mass the presence of which had not been previously suspected. We can thus in such cases readily control our clinical suspicions.

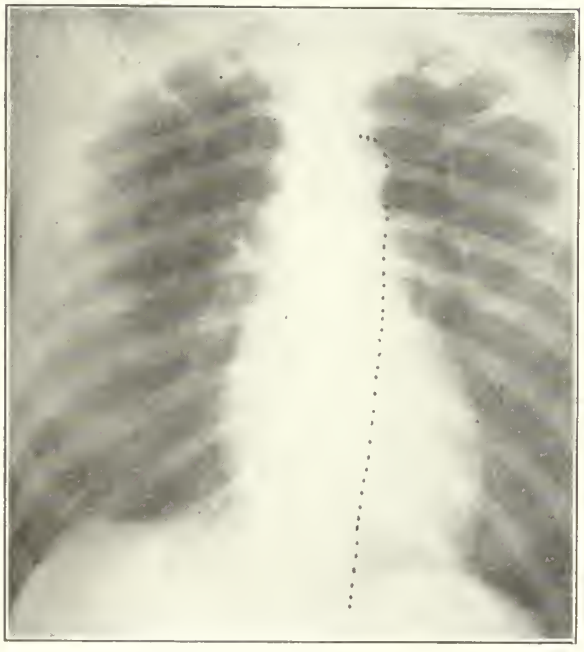

Fig. 1. The descending thoracic aorta is shown as a dotted line to the observer's left, at the root of the lung a small calcified area is visible lying amongst the tubercular infiltration.

I now wish to demonstrate radiograms on which can be plainly seen the shadow cast by the normal descending thoracic aorta in its entire course and also radiograms showing dilatation of this vessel.

Print No. 1 is of a patient seen in consultation with Dr. J. Wilson Shiels in whom a clinical diagnosis of peribronchial tuberculosis seemed justifiable. The photograph shows the presence of such infiltration, a part of which is calcified. But of more interest, in regard to the subject of this paper, is the fact that the shadow cast by the descending thoracic aorta is well shown. It begins on the left of the lower border of the fourth dorsal vertebra.

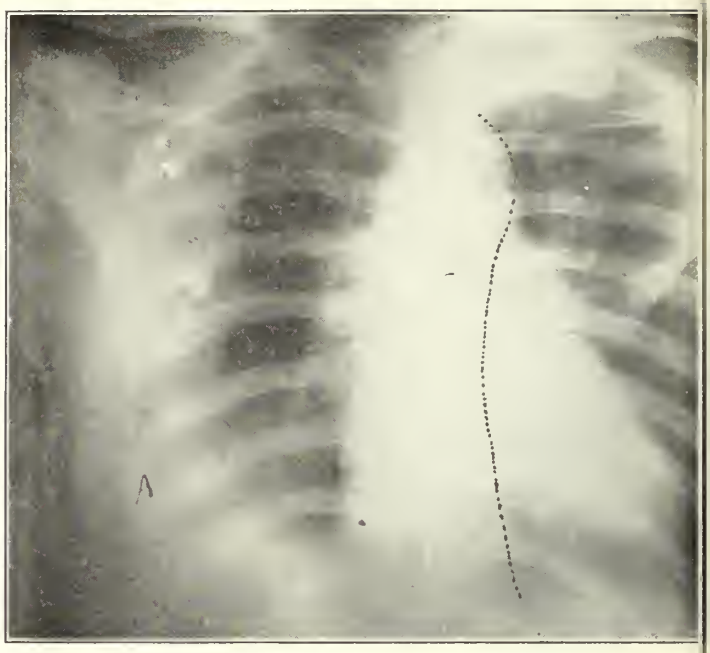

Fig. 2. (Kindness of Dr. Jellinek.) The concavity of the descending thoracic aorta has been dotted in. To the right A is the shadow cast by a pleural infusion.

The left margin of the shadow here projects three-quarters of an inch beyond the left margin of the shadow cast by the vertebral body. The right border of the aortic shadow is of course not visible, being obscured by the vertebral shadow. The left aortic border runs apparently straight along the sides of the fifth, sixth, seventh and eight dorsal vertebrae, when it begins to approach the middle line so that opposite the twelfth dorsal vertebra its border lies only a quarter of an inch distant from the left border of the shadow cast by the body of that vertebra.

Print No. 2 shows a similar shadow in a lady who has marked lateral curvature. It will be noted that the left margin of the aorta casts a shadow corresponding in its curve to that cast by the rotated

Fig. 3. Continuous black lines mark the borders of the vessel dilatation. The inner dotted lines represent the margins of the vertebræ between the rib attachments.

vertebral column, which of course agrees with the anatomical findings in such cases; the aorta being relatively fixed by the intercostal arteries.

Print No. 3 is interesting as it is a print of a patient who has hypertrophic arthritis of his lumbar spine, marked arteriosclerosis and has had double pleurisy; he further complained of pain along his dorsal spine and right-sided chest pains. It will be noted on comparing print one and print three that the right border of the cardiac shadow in the latter print is straight, that the cardio-hepatic angle is almost obliterated and at this point there appears to be a slight thickening of the shadow cast by the convexity of liver and diaphragm; moreover many whitish lines can be seen in the negative over the lungs and heart—the above points being suggestive of pleural and pericardial adhesions—but of more immediate interest is the aortic shadow which is here evident not only to the left of the vertebral shadow but also to its right, in other words the shadow cast by the descending thoracic aorta is much wider than the shadow cast by the normal sized vessel and betokens a dilatation of that artery. The pain along his dorsal spine was relieved by potassium iodide.

Print No 4 is of even more interest. The patient was a lady 70 years of age, who ten years previously had been treated for gastric ulcer, she at that time living on liquid food for six months. She had been well up to two years ago, since when she had been subject to attacks of intense localized epigastric pain

Fig. 4. The dotted lines mark the borders of the dilated vessel.

and to a duller more continuous pain accompanied by throbbing in the epigastric region. In a year she had lost 20 pounds and her condition had been ascribed to cancer of the stomach or aneurism of the abdominal aorta. Examination showed a thin non-anemic woman with slightly yellow conjunctivæ. At intervals, Murphy's manoeuvre caused pain, Robson's point was extremely tender and the right eighth, ninth and tenth segmental nerve areas hypersensitive. In addition a well marked systolic bruit was always audible in the epigastric region, beginning a little above the xiphisternum and being transmitted into both femorals. Pulsation was very marked but no tumor of any kind was palpable. The vessels elsewhere did not pulsate unduly. There was no cardiac murmur. Potassium iodide and rest in bed would cause temporary disappearance of the dull aching pain and the subjective sense of pulsation. The bruit persisted and in all postures. After much eliminative work the clinical diagnosis was cholecystitis with adhesions and a dilatation of the aorta high up between the pillars of the diaphragm. I took many plates but entirely failed to get evidence of any such dilatation till finally common sense came to my rescue and suggested that the dilatation might be supra-diaphragmatic. Then my search was rewarded and I present Print No. 4, which shows a distinct fusiform aneurismal dilatation of the descending thoracic aorta, best marked at the level of the ninth and tenth dorsal vertebræ. Operation followed by a modified Carlsbad course relieved her gall bladder condition. She still has to take small doses of potassium iodide for the relief of the throbbing and dull pain due to the aneurismal dilatation.

Addenda.

A fifth patient seen since these prints were presented complained of left sided dull chest pains of fifteen years' duration, corresponding in area to the middle chest zone. During the last six months he had suffered from periodic severe pain of an angina character. His heart was large, second aortic sound accentuated, systolic blood tension 210-220 m.m. hg. Peripheral vessels thickened. Field of cardiac response good. The Huchard postural inversion of pulse rate was present. Urine, specific gravity 1.025, free from albumen, casts and sugar. The clinical diagnosis was general arteriosclerosis. It seemed probable that the chest pain depended upon involvement of the descending thoracic aorta, the more recent angina pains upon an extension of the process to the root of the aorta or to the coronary arteries. The Radiogram verified our suspicions in a striking manner showing a well marked dilatation of the upper part of the descending thoracic aorta. In one patient who had similar right sided chest pain the autopsy demonstrated extensive arteriosclerosis of a dilated descending thoracic aorta with an almost entire obliteration of the mouths of the intercostal arteries. The association of such with the pain in the areas supplied by the intercostal vessels was extremely suggestive. Such pains are not necessarily radiating nor do they definitely correspond to any intercostal nerve spinal root or segment area.

PRELIMINARY REPORT ON EPIDIDYMOTOMY IN THE TREATMENT OF BLENORRHAGIC EPIDIDYMITIS.*

By L. BAZET, M. D., San Francisco.

THE greatest and quickest relief in the treatment of blenorrhagic epididymites is accomplished by epididymotomy.

Like appendicitis, this affection ought to be considered a surgical one. In its evolution the morbid process is contained in a closed cavity and the septic secretions cannot be drained. In all cases we have pain, fever, swelling and a decided leukocytosis from 12,000 to 27,000. Once epididymotomy is performed it is a surprise to notice its good effects; the pain stops, the fever falls, leukocytosis subsides; there are no relapses, and the cure is obtained rapidly.

In going over the history of this affection as far back as 1838 we find that orchitis and epididymitis, if not the same disease, at least were subjected to the same treatment.

At that time Ricord said "that there was no blenorrhagic affection of the organs contained in the scrotum without a swelling of the epididymis." He further demonstrated that it was not the testicle that was primarily affected, and that if it did become involved, it was only by propagation, and to a small extent only, the chief lesion being in the epididymis.

In 1876 Reclus proved that the periepididymitis is greater than the epididymitis itself. To-day we find

* Read before the San Francisco Polyclinic Gathering.

the lesions begin by an endo-deferentitis, and are followed by endo-epididymitis, interstitial epididymitis and a predominant periepididymitis.

Of all the parts of the genital apparatus that blenorrhagia affects, the epididymis shows us the most constant and the deeper lesions; it is increased in volume two to four times, and in its cavity we find small nodules of the size of a lentil, or of a pea, containing a puriform liquid; these nodules are nothing more than abnormal dilatations of the epididymis, plugged with a mass of various leukocytes imbedded in coagulated serum. The tubes appear permeable. In some of the tubes the epithelial lining has desquamated, the continuity is broken and the pus cells have wandered into the adjoining connective tissue. This connective tissue is quite heavily infiltrated with lymphocytes, its blood vessels injected, and some of its fibrillæ forced apart by serum transudate.

The treatment of this affection was identical from 1857, in the time of Curling and Gosselin; with what it was in 1900. It consisted of rest, anti-phlogistics, anodynes, refrigeration, compression, tapping of the vaginalis (Velpeau), incision of the testicular albuginea (Vidal de Cassis). Up to this latter date it was a timid treatment, a disarmed expectation, sacrificing to atrophy and sclerosis a muscular apparatus so necessary to the progression of the sperm.

In October, 1903, Baernaman, assistant professor of Neisser, treated 28 cases of epididymitis by puncture and, in the liquid aspirated, he found the gonococcus; he found also that the serum of these patients had often the power of agglutination for the gonococcus. Its results after the puncture were cessation of the local pain, disappearance of the sensation of tension, fall of the fever. No accident followed the puncture; the extreme pain was the only objection. No mention is made by him of leukocytosis, at least I have not read it in the translation.

In April, 1905, Belfied of Chicago, in an article in the *Journal of the American Medical Association*, entitled: "Pus Tubes in the Male, and Their Surgical Treatment," advocates the incision of the epididymis and its drainage by stitching the cut edges of the cavity to the cut edges of the skin.

Without asking priority for the operation, which has been witnessed by many of my assistants and many physicians in various hospitals, and at dates going as far back as 1897, as shown by the records of the French Hospital, I submit to-day what I consider to be a contribution to the surgery of this affection.

In 1897 I performed my first operation at the French Hospital with the following technic: I chose the ligamentum scrotalis for the incision. We know that the globus minor of the epididymis adheres to the testicle by a layer of very thick connective tissue; the globus minor of the epididymis is outside of the vaginalis and the respective relations of the globus minor, of the epididymis, of the inferior pole of the testicle, of the vaginalis, and of the scrotum are maintained by the ligamentum scrotalis Pasteau. It is at this point that there is no danger of wounding the testicle or opening the vaginalis. Seizing firmly the swollen indurated nodule of the globus minor of the epididymis in the left hand, an incision one inch long is made downwards into the cavity of the epididymis. At first the swollen nodules were punctured and the walls of the cavity were stitched to the incised skin; later on I performed partial epididymectomy,—that is, I extirpated the nodules hoping that anastomosis among the tubules could be made; but, after a case of double epididymitis operated on in this way had resulted in sterility, I changed my technic and now I perform an epididymotomy, that is, I open the cavity of the epididymis, as before stated, expose the nodules, relieve the tension, puncture the nodules, if pus is present, and stitch the walls of the epididymis to the skin. The wound is packed with gauze impregnated with 1-10 ichthyol and glycerine and the organ well supported. The wound heals in a week; the patient is able to be up in four to seven days. Compare this with the conservative treatment; the recovery is greatly in favor of the epididymotomy.

The cases treated by epididymotomy are getting on well; as quickly as the cases treated by puncture or by extirpation of nodules; further, the danger of sterility by this method is lessened.

I think that there is a great opening for this operation in the army and navy, as the cessation of pain, fall of the fever and ultimate recoveries are more quickly obtained than by any other treatment.

In the last eight years I have operated on 65 patients in the following hospitals: French Hospital, 43; City and County Hospital, 19; the United States Presidio Hospital, 1; the Waldeck Sanitarium, 2. The operation is benign; it ought to be performed as soon as the disease is diagnosed.

I have found the gonococcus in one-third of my cases. I never had any atrophy, nor any hernia, nor any necrosis of the testicle, nor any mortality.

DISCUSSION.

Dr. Reynolds: From my own personal experience I can add nothing to what Dr. Bazet has said. I know that his work has been original and independent, though without having gone over the literature I can not say it is the first work along this line.

After seeing a large number of these cases with Dr. Bazet, I can say that I am heartily in favor of it though it is so radical that one has to see it several times before giving one's sanction. The operative treatment compares favorably with the conservative in every way. The time of the patient in the hospital is no longer, and when they leave there is very little after effect. They are reduced more nearly to the normal than with palliative methods. The time of the operation is short, and if we were in the habit of using gas it could be as well done under this anesthetic. There is no accident, no mortality and no complication to be feared. The fall in temperature is immediate. The patients come into the hospital suffering from fever, pain, leukocytosis and all the signs of an abscess in a confined space, and shortly after the operation the temperature falls to normal, leukocytosis drops, pain is relieved and the patients are put at rest.

I believe the operation, with its most effective technic, causes sterility, but this can be urged as an objection only by those who believe that epididymitis itself does not render the testicle sterile. I do not believe this, and hence think the disease is as likely to sterilize as is the operation. From every point of view I have been completely won over by the operation and shall treat acute cases in this way.

California Public Health Association.

The sixth session of the California Public Health Association will be held in the City Hall, San Francisco, April 16, 1906.

The program is as follows:

10 A. M.—Greeting, by the President.

10:30 A. M.—"The Condition of California Water Supplies," by Dr. N. K. Foster, secretary of the State Board of Health.

Noon recess.

1:30 P. M.—Address by George C. Pardee, Governor of California.

2:30 P. M.—"The Sanitary Quality and Purification of Public Water Supplies," by Professor Hyde of the University of California.

3:30 P. M.—"Sanitary Disposal of Sewage," by George L. Hoxie, City Engineer of Fresno.

4:30 P. M.—One hour devoted to questions and answers.

Each paper will be opened for general discussion immediately after its reading. The discussion of the "Sanitary Disposal of Sewage" will be opened by Dr. Chas. F. Clark of Willits.

The association will meet at the banquet board in the evening, when short addresses of a general character will be indulged in.

PITYRIASIS ROSEA.

By DOUGLASS W. MONTGOMERY, M. D., San Francisco.

IN pityriasis rosea, as usually met with, the patient applies for advice on account of a rosy, blotchy rash well distributed over the body. The rash consists of slightly elevated, light red blotches usually about the size of those seen in measles, or in the roseola of syphilis. On looking at the rash more closely, however, many of the blotches are seen to be actively desquamating, and here and there a ringed patch will be found. The outer circle of the ringed patches consists of a bright red line, while the center is a buff color, and is either actively desquamating and branny, or is thrown up into fine parallel wrinkles. The patient is almost invariably in good general health, and can give no idea of how the rash was acquired, but simply says it was first noticed on some part of the trunk, and that it quickly spread over the rest of the body accompanied, perhaps, by some itchiness. In my own records itchiness is recorded in only six out of thirty-eight cases, and in four of these patients the eruption was very itchy, preventing sleep and making them exceedingly uncomfortable. The absence of itchiness is important, as it is looked upon as evidence of the eruption being syphilitic, the gravest and most likely error one can commit.

We rarely have the opportunity of seeing the rash as it commences, because the patients are usually in good health, and a blotch on the skin that does not pain or itch may escape notice, or if noticed, is not considered serious enough to require treatment. Out of twenty-four cases where the patient was questioned about the length of time that the rash was noticed previous to seeking medical advice, four said it existed less than one week before consultation, four one week before consultation, four between one and two weeks before consultation, three two weeks before consultation, six three weeks before consultation, two four weeks before consultation, one five weeks before consultation and one twelve weeks before consultation.

In all probability most of the cases begin by what L. Brocq has called a "primitive patch." This primitive patch is supposed to commence, as the other later blotches do, as a small red spot that subsequently becomes buff colored in the center and spreads at the periphery by a thin, red border. After the initial lesion has existed for a few days the more generalized outbreak occurs. I have never seen the initial lesion existing alone, but have, in some instances, been able to make it out subsequently, partly from the patient's assertion that it was the first patch to appear, and partly from its being larger and having more marked characteristics. But it is the exception to find the initial patch at all, or to get any history of its ever being present. This primary patch is almost always situated on the trunk, but may occur on the limbs. In thirteen cases where I have noted its presence it occurred: On the abdomen in four cases; on the chest in two cases; on the trunk, without designating the particular region, in three cases, and on the limbs in four cases.

As the nature of the disease is not determined, opinions in this regard differ. There are those who hold that it is due to a local infection, and there are others who are equally certain that it is a constitutional disease, due either to an infection accompanied by a rash on the skin, and therefore analogous to the exanthemata, or to some poison generated in the alimentary canal, and therefore analogous to urticaria.

Up till a few years ago the disease used to be called tinea corporis or tinea corporis maculata, and, in fact, in some large clinics it is still so designated. In referring to my case book I find that as late as fifteen years ago I designated these cases as tinea corporis maculata, and of course considered them a form of ringworm. I had, however, noted that I was unable to find the fungus. Brocq, to whom we owe much of our knowledge of this disease, showed that it begins as a "primitive patch," shortly afterwards becomes generalized, and then spontaneously clears up. It is said to occupy in its natural evolution about six or eight weeks. No ringworm disease runs any such course. Besides, many careful observers are absolutely unable to find any trace of a fungus. It has been said that the fungus is found only after a most careful search, and some have stated that it is only encountered at a particular time in the evolution of the disease. Kaposi said he found a vigorous growth of mycelium in a patient whom he demonstrated before the Vienna Dermatological Society, February 22, 1899, and Neumann, at the same meeting, said he was able to demonstrate the mycelium in such cases by soaking the scales in xylol[1]. These findings, however, are so isolated that they serve only to accentuate the negative side of the question, for if the mycelium were present it would surely be frequently found by the many enthusiastic investigators in this field.

It has been urged, as above indicated, that the rash is due to a constitutional disturbance, and that this disturbance occurs before the appearance of the rash, and that the general symptoms have disappeared before the patient consults a physician. If there are any such general constitutional symptoms in pityriasis rosea they must be slight, for in my experience the patient is unable to give any definite account of them.

Of thirty-eight cases, the histories of which I have looked over, only a few gave any account of symptoms of a general nature, and such as are apt to occur in any group of cases. One patient complained of polyuria. A man said that during the first few days of the generalized rash he had noticed that the urinary secretion was not as large in amount as usual. He had not measured it, however, and when I examined it, it was normal. Another complained of brick-dust sediment in the urine, and still another that he had a burning sensation on urinating. Jacquet has said that patients having pityriasis rosea suffer particularly from dilatation of the stomach. This view has not received much support from otner observers. In my experience symptoms referable to the stomach or bowels have been absent or unimportant. One patient, when she first noticed the rash, two weeks before seeing me, had pains in the stomach and looseness in the bowels. Another patient had pains in the stomach, another indigestion, and another heartburn. In another case the patient is noted as having a much enlarged liver. In five cases there was constipation, in two there was abnormal looseness of the bowels, and in one there were black ill-smelling stools. In two instances there was anemia, and in one the patient complained of headaches. As far, therefore, as general symptoms were concerned, nothing extraordinary was noted; nothing that one would not expect to find in an equal number of people drawn from the general population.

As the disease strikingly resembles seborrhea, especially seborrhea annulata, it is thought by some to he a seborrheide, and so to belong to the group of diseases including seborrhea sicca and oleosa, seborrheic eczema, acne, and psoriasis. The resemblance is often so close between pityriasis rosea and seborrhea annulata that some most acute clinicians like Besnier admit, in some cases, not heing able to make the diagnosis between them. If this view be correct, then pityriasis rosea would be a skin manifestation of a constitutional trouble, as the seborrheides certainly are, and should frequently be accompanied by other manifestations of seborrhea. The following is the list of skin diseases found in my patients having pityriasis rosea:

Seborrheides—Three patients had seborrhea sicca capitis, two defluvium capillitii, three alopecia, two

[1] *Ann. de Derm. et de Syphil.*, Serie iii, Tome X, p. 865.

blepharitis ciliaris, two acne, one psoriasis, three seborrheic eczema. Other diseases of the skin—One patient had urticaria, one impetigo contagiosa, two eczema, one herpes simplex, one sycosis vulgaris, one pityriasis versicolor, one lichen planus, three syphilis.

Of the above 16 seborrheides 12 occurred in six patients, that is to say six out of 38 patients were frankly seborrheic. Considering the fact that seborrhea is the daily bread of a skin disease specialist's work, this would not attract attention; but if this represents the real relationship between seborrhea and pityriasis rosea, then it could be said that those having seborrhea are unusually prone to having pityriasis rosea.

Sabouraud has recently investigated pityriasis rosea, and concludes from the pathologic histology of its lesions that it is a polymorphous erythema, due to some internal cause of unknown nature[2].

Although many observers, possibly most of them, are now of the opinion that pityriasis rosea is a cutaneous manifestation of a constitutional disturbance, there are many facts difficult to explain on this hypothesis, and the most striking of these facts is the "primitive patch." This appears a considerable time before the generalized eruption and just exactly as if it were the seat of first inoculation, from which the virus afterwards spread. The "primitive patch" is better marked than the lesions of the subsequent rash, like the lesion of inoculation in many undoubtedly infectious diseases. Peripheral extension, with central clearing of the lesions, is strongly suggestive of parasitism, but is not conclusive, as there are diseases of the skin not due to local parasites that act in this way. There is also the fact that although the idea that this disease was a ringworm was erroneous, yet the men who held this idea were clever clinicians, and always considered pityriasis rosea a parasitic disease of the skin. It undoubtedly gives the impression of being a local parasitic disease, and the results of treatment also favor this view. In this regard we must admit that in every self-limited disease with a wide variation in the time of its duration, it is difficult to determine the good effected by any mode of treatment. For instance, although the duration of this disease is set down as from six to eight weeks, yet we do not see the patient till the disease has run for some time, and the longer it runs without treatment the nearer the disease is to its natural termination. Then, again, many cases run a much longer course than the time given as the average; some have been known to endure for even a year before clearing up. Nevertheless, with all this taken into account, I do believe that the treatment instituted by Jamieson, and advocated by Norman Walker, is of benefit, and that it shortens the course of the disease. This treatment is entirely local, and therefore lends support to the idea that the disease is due to a parasite of the skin. In spite of these indications that the disease is produced by a local contagium, it is very rare indeed to get any evidence even hinting toward the transmission of the disease from person to person. A patient having pityriasis rosea, told me that a week before the appearance of the rash he had slept with a man having a rash. He was not able to describe the other man's rash with any particularity, so, of course, his evidence was of very little value. In another instance a patient told me he had used a strange bathing suit that chafed in the axilla. The primary patch appeared in this axilla shortly afterwards.

As showing the time of evolution of pityriasis rosea I have seen six patients who were under treatment for other maladies that detained them under my care longer than they otherwise would have remained. In them I was able to ascertain with fair exactitude when the disease began and also to observe when the rash definitely disappeared. In one case the rash lasted one week, in one case the rash lasted two weeks, in one case the rash lasted three weeks, in one case the rash lasted four weeks, in one case the rash lasted five weeks, in one case the rash lasted six weeks, in one case the rash lasted four months.

In some cases it is impossible to make the diagnosis between seborrhea annulata and pityriasis. There are the same light-red rings with buff wrinkled centers in both affections. Usually, however, the rapid distribution of the rosy rash is sufficient to differentiate the affections. In measles there are the severe constitutional symptoms, the catarrhal affection of the nose and throat and bronchi, the presence of the rash on the face, an unusual situation for pityriasis rosea, and the absence of the rings with the buff colored wrinkled center. In German measles, because of the slighter constitutional symptoms, the diagnosis may be more difficult, but there is the same absence of the peculiar rings. In the diagnosis between pityriasis rosea and the roseola of syphilis the gravest errors may occur. This diagnosis is especially imminent if the patient has at the same time a venereal sore, together with a fresh rosy eruption of pityriasis rosea. The first search should be for the "primitive patch," and if that cannot be found, then a careful examination should be made for small red rings with the skin in the center buff colored and wrinkled. The wrinkling, otherwise unobservable in the early stages, can sometimes be demonstrated by placing the thumb and finger on opposite sides of a patch and then opening them so as to put the skin on the stretch. There is also sometimes in syphilis a red ringed eruption with a desquamating center, that simulates closely a pityriasis rosea. It is a rare eruption, however, and occurs much later than the roseola of syphilis.

The desquamative green soap treatment used to be the favorite, and seemed to give good results. With a moistened hand green soap is rubbed into the whole skin from the level of the jaw downwards, once or twice a day for six days. During another six days the patient simply powders the skin with some indifferent powder while waiting for the separation of the shriveled upper epidermal layers. On the twelfth day from commencing the treatment a bath is taken for the first time, when the whole upper epidermal layers, together with their flora, are shed. A modification of this treatment is to add 2% of naphtol to the green soap. This mixture is rubbed in twice a day for two or three days, and not for six days, as in the former case. The rest of the procedure is the same as in the former case. This treatment is disagreeable, oily and irritating, and is not nearly so pleasant nor, to my mind, as effective as that recommended by Allen Jamieson.

For quite a long time I have been using with satisfactory results Jamieson's treatment published by Walker in his "Introduction to Dermatology," which runs as follows: The patient should be soaked daily for half an hour in a bath to which two or three teaspoonfuls of Condy's Fluid have been added, after which acidi salicylicacia 3 to 5, vaseline 100, is applied freely to the skin.

[2] *Revue Pratique des Maladies Cutanees, Syphilitiques et Venereiennes*, June 1 1902.

THE PATHOLOGY AND TREATMENT OF TETANUS.*

By T. C. McCLEAVE, M. D., Berkeley, Cal.

A YEAR ago, in discussing a paper on tetanus before this Association, I called attention to certain newly-discovered facts regarding the manner in which the tetanus toxin reaches the spinal cord, and I stated at that time that these discoveries would no doubt lead to improvements in the methods of treatment of this dreadful affection. During the year, so much of value in this connection has been published, that I have thought it worth while to review briefly at this time the whole subject of the pathology and treatment of this disease.

*Read before the Pacific Association of Railroad Surgeons, August 17, 1905.

Tetanus is caused by the development within the tissues of a specific micro-organism, the bacillus tetani. The bacillus probably in every case gains access to the body through a wound, either of the skin or mucous surfaces, though the wound may be so inconspicuous as to escape attention, as in cases of so-called idiopathic tetanus. This organism is a normal inhabitant of the soil, in tropical and temperate regions, and is especially found in garden soil and elsewhere where the ground has been contaminated by the intestinal discharges of the herbivorous animals. While its distribution is general, its virulence differs greatly under various circumstances and in various localities. Thus there are in Louisiana, New York, New Jersey, and in our own southern California and other places, certain well-defined areas where the germ is particularly virulent, and where the disease at times attains endemic proportions, making it necessary in these regions to take extraordinary precautions against infection. The germ is an anerobe, and tetanus is therefore common in cases of punctured wounds and others of a character which renders access of air to the deeper parts difficult.

The incubation period is variable, from a few days to even weeks, but it may be said that as a rule the shorter the incubation period the more virulent the disease. The severity is also increased in case of tetanus infection of wounds presenting considerable destruction of tissue and especially where there is a mixed tetanus and pyogenic infection.

In suitable cultures and in the tissues, the growth of the organism is accompanied by the production of an exceedingly potent toxin, the tetanic spasms being due to the action of the toxin upon the cells of the motor tracts of the central nervous system. All other cells of the body are unaffected by the toxin unless we except the red blood cells, for it has been found that the toxin consists of two bodies, one of which is hemolytic and the other produces the spasms, (tetano-lysin and tetano-spasmin).

For the most part, the growth of tetanus bacilli in a wound is not followed by the distribution of the organisms throughout the body, they being limited to the immediate neighborhood of the wound, and only in rare instances being demonstrable in the blood and internal organs. The toxin, then, is elaborated at the point of inoculation, and the question to which I desire to direct your especial attention is that of the manner in which it reaches the spinal cord, in determining which some recent observers, (Marie, Morax, Meyer, Ransom) have brought out facts of the greatest possible interest and practical importance, showing that it is along the axis cylinders of the motor nerves that the toxin is transmitted. The toxin appears to enter the nerve trunk only beyond the medullary sheath, or in other words, at the nerve terminals. A large part of the toxin gains direct access to the terminals in the vicinity of the point of inoculation, while the balance is taken up and distributed over the entire body by the circulation. In this way toxin is carried everywhere to the terminals of motor nerves, and all such nerves probably share in the process of absorption. The sensory nerves, however, do not take up the poison. From the nerve terminals, the toxin appears to be transmitted along the axis cylinders to the motor tracts of the cord, and then upward along these to the medulla. The process is the same whether it result from an accidental wound, or an experimental inoculation of tetanus toxin, and even if toxin be injected into the subdural space, it is only by way of the circulation and the motor nerves that it finally reaches the cord.

The tetanus toxin is found in the body only in the blood and tissues of the central nervous system, and it was this which led the investigators previously named to seek in these tissues the explanation for the phenomena of the disease. In their experiments they showed that toxin injected into the tissues can shortly be demonstrated in the motor nerves of the part; that if the nerve containing toxin be severed, that portion distal to the cut retains the toxin, while it gradually disappears from the proximal portion and is later to be found in the spinal cord; that severance of a nerve or of the cord prevents the passage of toxin beyond the point of severance; that nerves whose axis cylinders have been caused to degenerate by being cut some days before the experimental inoculation absorb no toxin at all; and that very small amounts of toxin injected directly into a nerve produce fatal tetanus much more quickly than larger amounts injected into the tissues or into the blood. These and other experimental findings would appear to fairly substantiate the theory that the toxin finds its way from the periphery to the cord by way of the motor nerves.

Treatment.—We have in tetanus antitoxin an agent which, when brought in direct contact with the toxin is a chemical antidote to it, and yet as a curative measure it has proven very inefficient as heretofore used by subcutaneous injection, the reason for which is now evident. When tetanus antitoxin is injected into the tissues it has been found that it is slowly taken into the circulation, partially destroyed and partially carried off in the excretions, finally disappearing altogether, and none is absorbed by the nervous tissues. Whatever good effect it could have therefore would depend upon such part as would tardily reach the unabsorbed toxin through the circulation. Toxin which has entered the nerves is already beyond reach. This does not mean, however, that the antitoxin cannot be efficiently used. Rogers, of New York, in a recent paper, describes the following method of treatment, reporting seven cases with four recoveries. Since the toxin is everywhere brought in contact with nerve terminals through the medium of the circulation, the first step in treatment is the attempt to neutralize this disseminated toxin. Because of its rapid absorption by the nerves and the slow absorption of the antitoxin into the circulation when injected subcutaneously, the only way to accomplish anything in this direction is to introduce the antitoxin directly into the blood stream by intravenous injection, under the most careful asepsis. The larger veins of the arm are most convenient for this purpose. The dose used should be from 10 to 20 c. c. which may be repeated as needed. Antitoxin should also be injected in the neighborhood of the infected wound.

The next step is to interrupt, if possible, the main currents of toxin passing up the nerves having their terminals near the infected wound, especially in wounds of the extremities, and it has been found that this can be accomplished by injecting antitoxin directly into the main nerve trunks of the part as high above the wound as possible, in the case of an infected hand, exposing the nerves in the axilla, and if dealing with an infected foot, exposing those high up in the thigh. Each nerve is then anchored with a ligature and with a fine needle enough antitoxin is injected at several points to swell the nerve to three or four times its normal size. The wounds are then dressed, the ligatures being left in place to facilitate reaching the nerves in the event that subsequent repetitions of this procedure are necessary, for the blocking effect thus produced is of comparatively short duration. In desperate cases, where respiratory and cardiac embarrassment indicate that the centers in the medulla are already being attacked, it is necessary, in addition to blocking the nerves in the manner just described, to also block the cord against the upward flow of toxin, by the injection of antitoxin into the cord itself. This is accomplished by inserting a long slender needle in the lower cervical region and injecting 20-30 minims of the serum. This act is not devoid of danger, especially that of hemorrhage into the cord, but so far no evil consequences have been reported. In less desperate cases, the injection may be made into the cauda equina by lumbar puncture.

The treatment of the infected wound remains to be considered. High amputation of the affected limb will of course remove at once the source of the toxin, and I think it should be done where antitoxin is not available, or where the wound is so extensive and so dirty as to render adequate disinfection impossible. The sacrifice of a limb is deplorable, but not so much so as the sacrifice of a life which amputation might have saved. Small wounds should be freely opened and cleaned out and dressed in such a way as to admit air. Tr. iodine, mercuric bichlorid and carbolic acid, in the order named, are said to be the best antiseptics for use in these cases. Dried antitoxin, used as a dusting powder in the wound, is said to be efficacious, and the entire region of the wound must be injected with antitoxic serum. All the treatment above described, both local and general, must be carried out under chloroform anesthesia and must be repeated daily or oftener until the symptoms subside.

The patient must be kept perfectly quiet in a dark room, and morphin, chloral, and bromids administered as needed for the control of the spasms. Cold, both general and as a local application to the affected part, is said to be useful, and if antitoxin is not obtainable, the method of treatment by means of repeated injections of dilute carbolic acid deserves consideration.

Murphy has reported a case treated by lumbar puncture, the withdrawal of cerebro-spinal fluid, and the injection into the subdural space of a dilute morphin-cocain solution. This procedure, repeated as often as the symptoms demanded, apparently afforded relief from the spasms, and the patient recovered.

Measures which promote phagocytosis may also prove useful, since it is shown by inoculation experiments that a low degree of phagocytosis favors the development of the disease, and vice versa, the bacilli in favorable cases apparently being largely taken up by the leukocytes and destroyed.

Tetanus, however, no matter how treated, will probably always maintain a high mortality rate, and our every effort, therefore, in patients presenting suspicious wounds, should be directed toward prophylaxis. The wound should be treated as previously described for wounds known to be infected, and the patient should receive daily injections of antitoxin about the wound and subcutaneously for not less than two weeks, a sufficient time to cover the possible incubation period. There is every reason to believe that a wide adoption of this plan would greatly lessen the incidence of tetanus.

During the year I have had no opportunity to personally test the treatment of tetanus by the methods I have outlined, and as stated in the beginning, this paper is only a review of the year's literature on the subject, but with the new light thrown on the pathology of the disease, I do not hesitate to recommend nor will I hesitate to use, if necessary, the most extreme measures described.

THE REQUISITE LABORATORY EQUIPMENT FOR THE GENERAL PRACTITIONER. *

By KAY L. WILBUR, M. D., Stanford University.

IN these days of the multiplicity of clinical instruments and clinical tests, it becomes of some importance to the general physician to know how much actual equipment is necessary for laboratory work and how far his time and experience will let him go before he needs to call for the services of a laboratory expert. In the present day medical education enough stress is laid upon all forms of laboratory work so that the average graduate is well equipped mentally for all the ordinary tests. A prominent English physician has recently raised objection to the modern method of teaching largely through the laboratory and has laid emphasis upon the need of more clinical instruction. While there is perhaps some basis for his opinion, still the growth of medicine has become so closely interwoven with the development of the more basic sciences, such as physiology, chemistry, pathology, bacteriology, etc., that a sound training in them is required if one is to keep abreast with advancing medical progress.

As a matter of fact, the number of clinical tests in every day use by the general practitioner need not be very great, and the amount of equipment required is comparatively small. Of course, if one attempts to go deeply into the study of any body excretion, or to do much in quantitative analysis, such an amount of time and apparatus is necessary that one is justified in assuming that all such work should fall into the hands of specialists. Spectroscopy, cryoscopy, nitrogen estimations, the use of the polariscope, etc., can well be left to those with time and equipment for such studies.

The materials from which we learn most, and a study of which is of value in every-day work are the urine, blood, feces, stomach contents, sputum, human milk and perhaps the fluid from lumbar puncture, swabs from the throat, pus examinations, or the various transudates and exudates. For the most part only the first six need to come under immediate observation in routine work, and the latter are better left to the laboratory expert.

The usual information required in regard to the urine is: Quantity in 24 hours; specific gravity; total solids; reaction; the presence or absence of albumen, sugar, bile, pus, blood, acetone bodies, casts, crystals of various sorts, epithelium and occasionally the kinds of bacteria.

To ascertain most of these things requires only a moderate amount of time and no particular training, and about the following apparatus: (1) Various simple reagents, funnels, graduates, etc.; (2) urinometer; (3) microscope; (4) centrifuge.

With the exception of the microscope, which is an absolute necessity, the expense of the above is not very great, and now a satisfactory microscope can be purchased at a reasonable figure. The centrifuge can be dispensed with and sedimentation glasses used, but more time is required and decomposition of some of the organic deposits may ensue.

The simple tests for albumen, heat and acetic acid, the HNO_3 test and the Haines' or Fehling's test for sugar require only a few test tubes and bottles. The microscopic work requires a little more time, but is of very great value. The failure to make microscopical examinations of urinary sediments often allows our cases to leave our hands imperfectly understood, particularly is this true in men with beginning changes in the kidney vessels where urine of low specific gravity is passed, with or without a trace of albumen in the urine, but usually with hyaline casts sparingly present in the sediment. A careful study of urinary sediments, such as that of Emerson of Johns Hopkins Hospital (*Journal of A.M.A.*, XLVI, Nos. 1 and 2), has shown how necessary it is for us to make microscopical as well as chemical examinations, and yet how lacking in clinical significance the presence of casts may be. How many men have been told they had Bright's Disease when a trace of albumen was found in the urine, when a careful microscopical examination would have shown they were only suffering from the after effects of a former gonorrhea, or had a beginning prostatitis. A more thorough understanding of urethral discharges of various sorts and of expressed prostatic fluids would save many a victim from the advertising quack and make many a life happy.

Fortunately no particular expertness is required for a study of urinary sediments, and by the aid of a blue glass this work can be done night or day, so that the

*Read before the Santa Clara County Medical Society, January 20, 1906.

general practitioner can usually find time to do it for himself.

So many excellent books on chemical and microscopical examinations are available that one can readily learn to recognize the ordinary constituents of sediments without special teaching.

While the urine has long been a subject of medical inquiry, it is only within more recent time that the blood has come under daily medical notice from its chemical and microscopical side. The usual information desired is: Percentage of hemoglobin; enumeration of the red and white blood corpuscles; differential count of the whites; presence of malarial organisms; Widal test; specific gravity. For this work is required: (1) A simple hemoglobinometer; (2) a microscope with a few reagents; (3) a typhoid culture and microscope or Widal test outfit; (4) a urinometer and two simple chemicals—(for specific gravity).

Ordinarily the amount of hemoglobin and the proper study of a smear will teach us all that we need to know. Only a man with considerable time at his disposal will be able to do his own blood counts or microscopical Widal reactions.

The amount of hemoglobin can be approximately ascertained in a few seconds with the Tallquist hemoglobinometer, although the instruments of Gowers, Dare, Von Fleischl and Sahli are perhaps more satisfactory. Since the Tallquist has no very great error it can be used with assurance for ordinary cases, reserving the more complicated instruments for special ones.

The enumeration of the corpuscles requires besides the microscope, the graduated pipettes, special glass slips and special solutions and requires some time. Ordinarily this method of acquiring information can be dispensed with or turned over to the laboratory specialists, unless in an acute case the number of white corpuscles is of immediate importance. By the use of Ehrlich's stops one can approximate readily the number of corpuscles, both red and white, as well as do a differential count from the ordinary smear. For rapid work this is often of much importance, as the pipettes are dispensed with and one need carry only cover glasses and the Tallquist hemoglobinometer into the sick room. Then by the use of Wright's stain, which fixes as well as stains, one is ready for immediate work. Differential counting is of some importance in acute cases, but can readily be left until time is available or in the various anemias, etc., sent to a laboratory for special report.

The presence of the malarial organism is not difficult to ascertain, particularly if one can examine fresh blood obtained during the fever following a chill. While stained specimens can be readily used, malarial organisms are so easily recognized in fresh blood and the immediate information is of such therapeutic value, that the practitioner should always attempt such examination in suspected cases.

The Widal test with the microscope is perhaps better done by the laboratory specialist, as the handling of live typhoid cultures is dangerous and ease of manipulation comes only with constant practice, but the grosser Widal tests, with the various agglutometers and dead typhoid cultures, is simple and can be safely done in every-day work. The specific gravity of the blood, the coagulation time, etc., are not required for every-day information and can be easily provided for in case a study of them is desired.

The feces do not receive from the general practitioner as much attention as they merit; particularly is this true in acute illnesses and in infantile disorders. The gross inspection, combined with a few simple chemical tests, is all that is usually required to estimate the undue presence of fat or proteid or other undigested food, the absence or presence of bile or derived bile pigments, the presence of blood, gall stones, mucous, etc., or the larger animal parasites. The microscopical examination for amebæ, the various parasites or their ova can readily be carried out in special cases or turned over to the laboratory. The chemical tests, estimation of nitrogen, etc., do not come within the province of the general practitioner.

The chemical study of the stomach contents often gives such useful information that every physician should be prepared to make it. The apparatus and chemicals required are few and simple and the tests easy of recognition. It is not necessary here to go into the qualitative and quantitative test commonly used. The only apparatus needed is graduated burettes, beakers, test tubes, evaporating dishes, and graduates and a few chemical solutions readily obtained from a dealer in microscopical or chemical supplies.

The sputum is, as a rule, of interest to us largely from a microscopical standpoint, and beyond the ordinary staining methods for tubercle bacilli, streptococci and the search for elastic fibers, Curschman spirals or the various crystals there is no usual occasion for its study by the busy practitioner. Here no apparatus beyond the microscope and a few stains is required.

Human milk is so easily analyzed, as regards its more important constituents, that one is surprised how comparatively few physicians avail themselves of the opportunity to readily acquire reliable information about the food of nursing infants under their charge. A simple Holt's test outfit is as reasonable in price as it is valuable as an aid, and it requires but little time to run the few requisite tests through.

The other substances for laboratory investigation that come before us are perhaps better left to the clinical pathologist, still any one can arrange a satisfactory incubator with a wooden box, a thermometer, and an incandescent light and study cultures, made on ready purchased media, from throats, abscesses, etc. With the equipment enumerated for the blood and urine an interesting or unusual case could readily be studied from its microscopical side, and we should all be prepared to do such things as stain for the gonococcus and identify with some accuracy the organism from an abscess.

I trust that it is clear from what has been said that the usual laboratory work of the practitioner does not require an inordinate amount of expensive apparatus, or any great skill or experience. There are so many simple tests that teach us so much about our cases that we should all attempt to bring them into practical every-day use, leaving the more complicated chemical or bacteriological researches that confront us in some cases to men especially trained and equipped for such work.

GASTROENTERIC AUTOINTOXICATION; ITS RECOGNITION AND SIGNIFICANCE, AND ITS RELATION TO ARTERIAL HYPERTENSION.*

By W. A. BRIGGS, M. D., Sacramento.

THE physiologic and the pathologic problems of digestion and of the digestive tract are obviously fundamental. Not only are they fundamental, but, both from a theoretical and from a practical view-point, they are anthropologically universal. They implicate every tissue and every function—nay, more, the very destiny of nations. Many a philosophy is tinged with black bile, and many a world policy is implacably determined by the colon bacillus.

In recent years physiologists, bacteriologists and clinicians, notably Pawlow, Metchnikoff, Chittenden and Federn, by their patient and ingenious labors, have thrown much light on various aspects of these problems. It is particularly to these investigations, interpreted by my own clinical experience, that I invite your attention this evening.

*Read before the Yolo Society for Medical Improvement, Nov. 7, 1905.

Chronic gastroenteric autointoxication may persist during a long period and produce marked secondary changes, may even reach the terminal stage of exhaustion of the cardiac reserve, without having developed local symptoms, either gastric or enteric, sufficiently pronounced seriously to attract the attention of the patient.

In speaking of partial atony of the colon so often associated with severe forms of toxemia, Federn not inaptly compares it to certain abnormities of the uterus, as, for instance, flexions and erosions, which often cause only quite insignificant local symptoms, and yet provoke painful and profound disturbances in distant organs.

In the diagnosis of partial atony, Federn places the patient's body in a perfectly horizontal position with the knees and hips slightly flexed. If necessary for the patient's comfort, the head may be slightly raised, but not the shoulders. Percussion may then be made but very lightly, over the colon, beginning with the cecum and following its course to the sigmoid, using one finger of the left hand as a plexímeter, and percussing from finger-breadth to finger-breadth along the whole course of the colon, so as to determine the condition of every segment, even the smallest.

On these points the position of the body and the precision of percussion—Federn lays great stress. Dullness indicates accumulation of fecal matter and atony. Tenderness usually exists over such areas and may be developed by deep pressure.

In these cases either constipation, constipation alternating with diarrhea, or even diarrhea without constipation, is usually present, and Federn believes that all, or at least the great majority of cases of chronic, idiopathic, intestinal catarrh are caused or complicated by partial atony of the colon.

I refer thus explicitly to Federn, because in all the literature at my command I have been able to find nothing else quite so illuminating, both from an etiologic and a therapeutic point of view, as his various papers on blood-pressure and atony of the colon.

After ascertaining the condition and position of the colon, the stomach should be carefully mapped out, so as to determine what, if any, influence this organ may have in any possible aberration of total motility. In case of dilatation or displacement of the stomach, its motor function should be investigated.

After a careful physical examination, I have been for several years in the habit of testing the total motility of the gastrointestinal tract. This may be done by any innocuous substance which colors the stools without in any way influencing the motor functions of the digestive organs. I have experimented with methylene blue, bismuth and charcoal. Methylene blue is occasionally absorbed so entirely as to leave only an indistinct trace in the stools; bismuth is somewhat constipating, so that latterly I have employed charcoal exclusively for this purpose. I order six tablets, two of which are to be chewed fine and swallowed after breakfast. When these two have passed the bowels entirely, two more are to be taken in the same way after luncheon; and when these have passed, two more after dinner.

The patient is instructed to take careful observations and notes showing when the first charcoal passes, when the bulk of it, and when the last. In this way I am able to judge accurately of the motor functions of the digestive tract as a whole. Knowing the total motility and the gastric motility, it is only a question in subtraction to ascertain the motility of the intestines.

In doubtful cases it is well to determine the acidity of the stomach after a test meal; for, *a priori*, we might expect, and practically I have found, that in a large percentage of cases of gastroenteric autointoxication there is either achylia gastrica or marked sub-acidity. If the gastric digestion is very feeble or entirely arrested and the normal acid stimulant of hepatic, pancreatic and intestinal secretion is greatly or entirely lacking, is not intestinal digestion likely to be correspondingly slow and imperfect, and intestinal putrefaction correspondingly active? Such, in fact, we find to be the case.

Next we should look for evidences of decomposition of contents of the intestine: offensive stools, spongy stools, offensive gas per rectum, offensive breath, offensive urine and indicanuria. A muddy or sallow complexion is often present in these cases, even a distinct jaundice of hematogenic origin, especially, perhaps, when the catarrhal process invades the appendix. Two such cases I have seen recently. Urticaria and, less frequently, erythema, may occur greatly aggravated in the acute exacerbations. It goes without saying that bacteria and their toxins often produce catarrh of the stomach and the intestines; but they often also irritate and inflame distant mucosa—of the nose, pharynx, bronchi—producing and aggravating catarrh and markedly diminishing their resistance to bacterial invasion.

Case 1. A merchant, 38 years of age, had complained of urticaria intermittently for several months. Sent for me on account of harassing cough, with severe noeturnal paroxysms. He ate freely of meats and indulged his appetite generally. The urticaria and extreme irritability of the membranes made me suspect their gastrointestinal origin which a careful investigation confirmed. The usual cough remedies had very little effect, but laxatives and restricted diet brought relief. This history was repeated again and again, but unfortunately the patient preferred Bacchus to Esculapius, and therefore has not had continuous and systematic treatment.

Case 2. A traveling salesman, using tobacco freely, drinking at times to excess, and a high liver, came to me with a systolic pressure of 190mm, marked mental depression, dyspnea on exertion, and severe urticaria. The bowels were constipated and the transverse and descending colon atonic. The urticaria was distinctly connected with toxemia due to errors in diet and drink. Under laxatives, nitrites and a careful diet he got in six months entire symptomatic relief and a systolic pressure of 130mm. Resumption of his previous habits, however, soon brought on the old train of symptoms, which were again relieved by return to the previous regimen.

In this case the causal relation between the gastrointestinal autointoxication on the one hand and arterial hypertension, mental depression and urticaria on the other seems unquestionable.

Infection or toxemia of intestinal origin often produces rheumatism. I am quite positive that I have seen acute rheumatism develop in this way. For this reason laxatives, antiseptic enemata and other means of disinfecting the gastrointestinal tract have found, I believe, a useful place in my therapy of certain cases of rheumatism.

Case 3. L— was taken with an acute indigestion, and two or three days later with acute articular rheumatism of severe type. Following the acute indigestion came an extremely profuse and fetid diarrhea. I gave oil, salicylates and naphthalin by mouth and washed out the colon thoroughly with creolin solution alternating with sterile salt solution. I was profoundly impressed by the association of marked virulence of the disease with prompt and complete recovery under vigorous intestinal antisepsis, and ever since have regarded the gastroenteric tract as the probable source of infection in many cases of acute rheumatism, sharing this unenviable distinction with the tonsils. Chronic rheumatism, particularly of the muscular type, is often associated with chronic bowel infection, and often disappears under treatment intended to relieve the bowel condition.

Case 4. B— consulted me in November, 1904. He had suffered from myalgia for three years, with frequent exacerbations.

Three months of lacto-vegetarian diet with mild laxatives and Faradization of the intestines produced entire relief of the rheumatic symptoms, which continues to the present.

On account of toxemia and of diminished powers of digestion and absorption, anemia is quite common in gastroenteric autointoxication.

Case 5. Mrs. E— sent for me in great haste one night in August, 1903. I found her in a state of great apprehension with extreme tachycardia; pulse, 180. She had an enteritis of long standing with profuse mucus discharge, ptosis of right kidney, stomach and colon, and atony of the deseending and transverse colon. The immediate attack was unmistakably connected with toxemia of intestinal origin.

The tachyeardia continued for three days with nocturnal exacerbations, and recurred at irregular intervals until late in September, when I left for the East. After my return she eame to my office in June, 1904. She gave a history of several months of sanatarium treatment, change of climate and medication, without material benefit. Ex-

amination confirmed the presence of conditions already described, and in addition a decided anemia, Dare's hemoglobinometer indicating a hemoglobin content of 38 per cent only.

Rest, a careful but liberal diet consisting chiefly of milk, eggs, cream and coarse farinaceous foods; an efficient abdominal support; the sinusoidal current to the colon; the wave current; vibration; eserine and iron, produced a slow but satisfactory improvement, amounting in five months practically to symptomatic recovery.

The kidneys also are irritated by toxins and bacteria. The urine is often heavy and high-colored; traces of albumen appear with the exacerbations, and not infrequently a chronic nephritis is finally established. Sooner or later peripheral irritation of the splanchnic, or direct excitation of the vasomotor centers by ptomaines and toxins, causes arterial hypertension; toxins and perhaps bacteria invade the arterial walls, and degenerative processes set in. At first, hypertension may be intermittent, but later it becomes permanent, and then, unless intelligent aid is seriously invoked, the beginning of the end is in view.

The pathogenesis of arterial hypertension is complicated, and, in many respects, obscure. An immense amount of experimental work, however, has been done by Ludwig, Tigerstedt and numerous others, which, at least in its net results, it may be well for us to consider in this connection.

"In any individual," says Janeway, "the blood-pressure, at any given moment, depends on four separate factors: (1) The energy of the heart; (2) the peripheral resistance; (3) the elasticity of the arterial walls; (4) the volume of blood."

Increase of any one of these factors, other factors remaining equal, increases blood-pressure, and diminution of any factor diminishes it.

Obviously, the total end-pressure of the arterial circulation is determined by the effective energy of the ventricular systole, possibly increased by the muscular contraction of the arterial bed itself, and diminished by the loss in friction.

Arterial tension is regulated by a vasoconstrictor center situated in the medulla oblongata, and subsidiary vasoconstrictor centers, and by vasodilator centers in the lower cord, like other centers receiving and transmitting impulses through afferent and efferent nerves which have been demonstrated in every important organ with the exception of the brain.

As a rule, stimulation of centripetal nerves increases the vascular tone and raises blood-pressure.

A few centripetal nerves like the splanchnic, for instance, contain both vasoconstrictor and vasodilator fibers, the latter responding to milder, the former to more active stimulation. Only one nerve in the whole body—the depressor—is exclusively vasodilator.

Stimuli from various organs and tissues reach the vasometer centers by the centripetal nerves, and are reflected to the different vascular areas either as vasoconstrictor or as vasodilator impulses.

While practically all of the afferent nerves participate in the vasomotor function, one, the splanchnic, because of its sensitiveness to vasomotor influences, and because of the enormous vascular area it controls, overshadows all the rest. This nerve and this vascular area, the splanchnic nerve and the splanchnic area, are the chief factors in the determination of blood-pressure. In this conclusion physiologists, I believe, are practically agreed.

By careful investigation for a long period, Federn has demonstrated what I have repeatedly confirmed —that partial atony of the colon is often associated with arterial hypertension. He assumes that hypertension is brought about by peripheral or centripetal irritation of the splanchnic nerve, due to adhesion of the intestinal contents to the bowel-wall. In other words, he assumes a mechanical rather than a chemical or toxic irritation. I have often found arterial hypertension evidently of intestinal origin in cases in which, by the methods of Federn, I could not demonstrate the existence of partial atony; and I have found partial atony, as Federn confesses to have done himself, in cases with a normal tension.

Ptomaines, toxins and undetermined poisons of gastroenteric origin may conceivably affect blood-pressure in several ways: (1) By peripheral or centripetal irritations which are reflected from the vasomotor centers; (2) by immediate excitation of the vasomotor centers; (3) by local excitation of the arterioles themselves, after the manner of epinephrin hypodermatically; (4) by either immediate or reflex stimulation of the heart; (5) by the production of arteriosclerosis; (6) by causing nephritis, and disturbing the balance between absorption and excretion; (7) by disturbing metabolism, and favoring the production of toxins which still further influence the vasomotor functions. Personally, I believe they act in all these ways, but principally in the first two; that is, by peripheral and by central irritations.

In brief, I should express the pathogenesis of gastroenteric autointoxication and its consequences somewhat as follows: A strenuous life, either physically or mentally without sufficient daily and yearly relaxation; worry and mental depression, emotional stress and storm, irregularities and excesses which debilitate the nervous system and impair the innervation of the digestive organs; bolting of food, preoccupation at meals, excess of foods, particularly of animal foods; constipation; imperfect gastric digestion, which throws too much labor on the intestines; achylia gastrica, or marked hypoacidity, which deprives the intestines and their tributary glands of their normal stimulus; infection of the digestive tract from foods, and perhaps from bronchial and nasal catarrhs; irritation and infection of kidneys from ptomaines and bacteria of gastroenteric origin; peripheral irritation of the splanchnic, either chemical or mechanical or both, by putrefying fecal masses, which, combined with irritation of vasomotor centers and perhaps of the heart by ptomaines and toxins, produce arterial hypertension; endarteritis caused by ptomaines and bacteria of intestinal origin, and developing arteriosclerosis; continued hypertension, causing hypertrophy of the heart, and finally dilatation, incompetence, secondary low pressure and death—or continued and perhaps increasing and paroxysmal hypertension with increasing arteriosclerosis, and rupture of cerebral artery, or trophic lesions either of the brain or extremities.

As an instrument of precision, although in a different and restricted field, the sphygmomanometer corresponds to the clinical thermometer. The tactus eruditus of our medical forefathers is a lost art; and even were it not, would be inadequate for the more exact requirements of modern science. And yet our touch should be educated in the fullest sense—not less, but rather more than that of our predecessors—for the extension of our knowledge will be largely nugatory unless it go hand in hand with a perfecting of our means and methods of research. The erudite touch, moreover, while not so exact as the sphygmomanometer, is of much wider and easier application. By touch, then, we should learn to estimate arterial tension—systolic, diastolic and intermediate.

Three methods of palpation are employed:

(1st) Compressing the artery with one finger until the pulse is no longer felt by a second finger placed on the artery just below.

(2nd) Gradually increasing the pressure on the artery with two fingers until the pulse is obliterated, carefully noting pulse changes meanwhile.

(3rd) Placing three fingers on the artery, obliterating the pulse with the lowest one, gradually increasing the pressure with the uppermost until pulse ceases, and with the middle one noting changes in pulse tension, as in the second method.

(*To be continued.*)

BOARD OF EXAMINERS COMMENDED.

The following letter has been sent to us by the secretary of the Board of Examiners with the request that we publish it. So seldom does one hear anything except the "kicks" of rejected candidates that it is indeed a pleasure to give this word of commendation, publicity:

The California Board of Medical Examiners, San Francisco, Cal. Gentlemen:—I have heard so much about the "unfairness" of the Medical Examining Board of this state that I write to add to your undoubtedly interesting collection.

I received a B. S. from the University of Southern California in 1899, and while there learned to give my papers a fair and correct rating, so when I took my examinations last April I marked my own papers on the slip on which the questions were printed, to compare with what the board considered fair.

	My Marks.	Boards.
Physiology	80	78
Anatomy	82	87
Obstetrics	90	88
Surgery	85	89
Materia Medica and Thera	70	80
Bacteriology	78	75
Pathology	72	80
Chemistry	65	73
Medicine	75	76

Now, I want to say this: If any two or more men could mark the papers they could not come closer than I did with what marks I received from the board. I gave my marks at the time I handed in my papers, not after I looked them up. And I wish to thank the board for what I considered a "square deal."

I know that this letter is unusual but I simply wanted to say how I was treated and have told many sorebeads the same as this.

Thanking you for taking up your time, etc., I am,

Fraternally,

(Signed) RALPH W. AVERY.

Pasadena, California.

Resolutions on Nostrums.

The appended resolution was unanimously adopted by the Germantown Homeopathic Medical Society of Philadelphia at its last meeting and ordered sent to the daily papers and medical journals:

Resolved, That the Germantown Homeopathic Medical Society, of Philadelphia, places itself on record as opposed to the manufacture and sale of all patent medicines or nostrums of whatsoever sort, and requests all members of the medical fraternity to abstain from publishing their articles in any medical journal advertising patent medicines or nostrums.

This Society commends all medical journals and all newspapers which abstain from advertising patent medicines and nostrums for their campaign against the patent medicine and nostrum business.

The pure-food Commissioner of the State is commended for the work he is accomplishing in this direction, and this Society pledges him its support in all future efforts of the same kind.

The public is cautioned against the use of patent medicines and nostrums as unscientific and dangerous to the general health and welfare.

COURSES OFFERED TARRANT COUNTY MEDICAL SOCIETY.

Course 1. Electricity and its Application to Medicine—10 periods—Embracing the theory of electrical energy; demonstrations of positive and negative electricity, detection and different physiological and chemical effects; galvanic batteries and their action; induction and the faradic current; therapeutic uses, stimulation, diagnosis of degeneration, depilation, cataphoresis, etc.; static machines, methods of examination and demonstrations of diagnostic and therapeutic uses; X-ray burns; medico legal status of skiagraphs, photo therapeutics, etc.

Course 2. Methods of Precision in Clinical Diagnosis—15 periods—Including demonstrations of methods of urinalysis in the detection of pathological chemical constituents, casts, pus and other urinary sediments with exhibition of sections of normal and diseased kidneys; the methods of examining the stomach contents, discussions of diseases of the stomach, exhibitions of pathological specimens and microscopical sections of diseased stomach conditions; demonstration of methods of detecting tubercle bacilli in sputum, urine and exudates by the microscope and animal injection, with exhibition of pathological lungs, dissected subjects and gross specimens and microscopical sections of tubercular organs; methods of detecting the gonococcus, Klebs-Loeffler bacillus, etc.; methods of staining the blood and examination for the malarial plasmodium; hemoglobin estimation and methods of blood counting. This course will be a laboratory course with miscroscopes and chemical apparatus supplied each physician.

Course 3. Anatomy of the Brain and Cord—12 periods—A dissecting course, each physician to be furnished with an entire brain for dissection; illustrated with drawings, charts and models and by microscopical sections of the various cerebral and cord regions. The course will demonstrate the blood supply, the origin of cranial nerves, the meninges and the superficial anatomy, internal nuclei, ventricles, nerve tracks, etc., accompanied by emphasis on cerebral localization and the relation of the brain to nervous diseases.

Course 4. Bacterial Toxins—12 periods—Covering the history of the germ theory, discussion of decomposition, putrefaction, fermentation and the nature and physiological action of the toxins of eight or ten patholcgical germs; the germicidal property of blood serum; alexins; precipitins; lysisn; agglutinins; including the theory and methods of producing immunity, the preparation and uses of protective serums. The course to include microscopical demonstrations of bacteria to be illustrated by charts and drawings and by animal demonstrations.

Course 5. The History of Medicine—5 periods—To include a study of Egyptian codices, ancient and medieval medicine; the origin of medical terms; historical review of the men whose names are embalmed in medical nomenclature; a discussion of the spelling and pronunciation of medical words and present tendencies in the formation of the newer scientific medical vocabulary.

Course 6. Physical Diagnosis—10 periods—Illustrated by clinical cases, pathological specimens, dissections, charts, drawings and microscopical sections; course to cover the newer methods of detecting pathological conditions of the thoracic viscera.

Course 7. Practical Pathology—15 periods—A laboratory course aided by microscopical work, drawings, charts, animal experimentation and autopsis, showing the nature of pathological processes including inflammations, repair, degeneration, regeneration, hypertrophy, atrophy; the pathology of malignant and benign tumors with special attention to the examination of tissues for malignancy such as uterine curettings, lymph glands, cervical sections, etc.; a pathological study of the principal organs from several selected diseases.

Course 8. Medical Jurisprudence—10 periods—A review of the newer medical jurisprudence in relation to malingerers, legal aspects of pregnancy, birth, legitimacy, abortion, infanticide, impotence, malpractice, insane, X-rays, general principles of toxicology, medical witnesses; expert testimony, autopsies, medico-legal examinations, etc.

Course 9. The relation of man to Animal Life—10 periods—Including a review of the modern conception of the origin of species in the evolution of animal and vegetable forms as demonstrated by comparative osteology, anatomy, embryology, animal distribution and fossil remains; illustrated by comparative skeletons, dissections, embryos, charts and diagrams of the osseous, vascular and cerebral systems of living and extinct forms, and a comparison of the diseases of man and other vertebrates.

Course 10. Technique of Operative Surgery—15 periods—To cover the subjects of sterilization, with plate cultures from hands and ligatures; a discussion of the action of antiseptics; practice in ligature tying; local infiltration methods according to Schleich; skin grafting according to Therisch; a study of the various forms of sutures; the newer methods of intestinal anastamosis, use of the McGraw elastic ligature, cuff method, Connell suture and Murphy button in enterostomy, with laboratory work on animals.

Course 11. Late Physiological Investigations—10 periods—Illustrated by animal experimentation and diagrams, covering the newer discoveries in physiology, such as hetromorphosis, heliotropism, geotropism and galvanotropism, the production of multiple embryos from one egg, the demonstration of the basis of heredity by cross fertilization of eggs without nuclei, physiological effects of ions, artificial parthenogenesis (artificial fertilization by chemical means, Loeb's methods), the laws of cross fertilization, newer results in cross fertilization in vegetable and animal life, etc.; Nendel's law of heredity and review of experimental proof, etc.

Course 12. Scientific Pharmacology—12 periods—Introduced by modes of drug action, elective affinity, relation between chemical composition and physiological action. A review of Pharmacopeal preparations and drug classification. Demonstrations of (1) General Remedies: Drugs acting on the nervous system; drugs acting on the heart; drugs effecting cell nutrition. (2) Local Remedies: Drugs having selective action on various organs. Course to consist of lectures and demonstrations of the physiological action of typical drugs in each group on dogs, rabbits and Guinea pigs, aided by physiological apparatus and a review of recent literature.—*Courier-Record of Medicine.*

INSURANCE FEES.

In December we sent a circular letter to every insurance company which, so far as we could learn, was doing business in the state of California. Our letter was in the nature of an inquiry, asking the fees paid for an examination for life insurance, and particularly the minimum fee. To this circular letter we have had replies in all but six instances, and presumably these six pay a fee of $3, and are ashamed to write and tell us about it. In the case of the newly consolidated Conservative Life and Pacific Mutual companies, making the Pacific Conservative, we have not been informed at the time of writing, what the minimum fee is, if it has been fixed. At least two of the directors of the company, however, have given us personal assurance that they will make every effort to see that a minimum fee of $5 is paid.

We have reason to believe that several of the companies indicated as paying a minimum fee of $3, are authorized to pay the $5 fee if the examiner insists upon it and will not make the examination for less.

At the time that our letter was sent out, the Equitable Life and the Mutual Life paid a minimum fee of $5; this has quite recently been reduced to $3.

We would respectfully suggest that you preserve this list carefully and make every effort to divert life insurance from the $3 companies to the $5 companies, for the reason that the chances are that the insured will have his policy in a better company if he takes it out in one which pays the medical examiner a decent fee for the work required and thus insures a careful examination by a thoroughly competent man. As we have already pointed out in the columns of the JOURNAL, the $3 companies, or at least some of them, assume the attitude that if a "physician" will not make an examination for $3, "some one else" can be found who will do so. A very brief consideration of this attitude will disclose the danger in taking out insurance in such companies.

$5 Companies.

Aetna Life Ins. Co., Connecticut Mutual Life Ins. Co., Home Life Ins. Co., Manhattan Life Ins. Co., The Mutual Benefit Life Ins. Co., National Life Ins. Co., New England Mutual Life Ins. Co., Northwestern Mutual Life Ins. Co., Phoenix Mutual Life Ins. Co., Provident Life and Trust Co., State Life Ins. Co., Union Mutual Life Ins. Co.

$3 Companies.

Bankers' Life Assn., The Equitable Life Assurance Co., Fidelity Mut. Life Ins. Co., Metropolitan Life Ins. Co., Minnesota Mutual Life Ins. Co., Mutual Life Ins. Co. of N. Y., N. Y. Life Ins. Co., Penn. Mutual Life Ins. Co., Provident Savings Life Assurance Co., Travelers' Ins. Co., Union Central Life Ins. Co., Washington Life Ins. Co.

No Reply to Letter.

Germania Life Ins. Co., Hartford Life Ins. Co., Life Assn. of America, Massachusetts Mutual Life Ins. Co., Mutual Reserve Life Ins. Co., Netherlands Life Ins. Co.

Encouraging.

Very few of the important newspapers have taken an open part in the nostrum fight. The San Francisco *Chronicle*, which, ever since the plague days of San Francisco, has been an anti-public-health organ, gives the nostrums editorial support. The Brooklyn *Citizen* and the Houston *Post* print as their own views matter sent to them by the Proprietary Association; but mostly the nostrums must depend for backing upon compliant second and third rate journals like the Youngstown *Telegram*, the Bangor *Commercial*, the Dayton *Herald*, the Dayton *Journal*, the Riverside (Cal.) *Enterprise*, and that ilk. Although they profit largely by patent medicine advertising, the Philadelphia *North American* and the New York *Sun*, to take two conspicuous examples, have not hesitated to print news matter of the kind which the Proprietary Association regards as "destructive," and even the New York *World*, which carries more medical advertising than any paper in the country, has thus far denied its news and editorial columns to these liberal purchasers of advertising space. On the whole, we think the Proprietary Association has a right to be disappointed in the newspapers. It hasn't been getting what it thought it was paying for.—*Collier's Weekly.*

For the control of nasal hemorrhage tampons can be readily prepared as follows: A layer of cotton is wound around a penholder or similar object until the desired thickness is obtained and then withdrawn. The cotton cylinder is then moistened, squeezed dry and inserted into the nasal cavity. If the projecting end of the tampon is now moistened it will swell up and thus produce sufficient compression.—*International Journal of Surgery.*

STRONGEST IN THE WORLD

THE EQUITABLE LIFE ASSURANCE SOCIETY
OF THE UNITED STATES,

No. 120 BROADWAY, NEW YORK

MEDICAL DEPARTMENT.

WILLIAM R. BROSS, M. D., ARTHUR PELL, M. D.,
MEDICAL DIRECTORS.
JOHN WARREN, M. D., T. H. ROCKWELL, M. D., F. C. WELLS, M. D
ASSISTANT MEDICAL DIRECTORS

NEW YORK February 15, 1906.

Dear Sir:--

By order of the President, we advise you that on and after March 1st, 1906, the fees for medical examinations allowed by the Equitable Life Assurance Society throughout the United States and Canada will be as follows:

$3.00 for each examination where the amount applied for is $3,000 or less.

$5.00 for each examination where the amount applied for is over $3,000 and less than $25,000.

$7.50 for each examination where the amount applied for is $25,000 or over, and less than $50,000.

$10.00 for each examination where the amount applied for is $50,000 or over.

(An extra allowance of $1.00 will be made when an additional specimen of urine is obtained by order of the Society.)

The loading for expenses in connection with our business is a percentage of the premium, and the uniform fee heretofore paid has made the expense of procuring a small policy too large, whereas a larger fee can properly be paid in connection with the larger policies.

We do not wish to be understood as assuming that it is less work to examine a risk for $1,000 than one for $5,000, but the Society can properly pay more for examining a $5,000 risk than it can for the smaller amount.

We trust that the foregoing schedule will be satisfactory to you, and will thank you to fill up, sign and return to us at once the enclosed postal.

Very truly yours,

MEDICAL DIRECTORS,

The Equitable Life Assurance Society.

Philanthropic Physicians.

In order that we may aid the Equitable Life Assurance Society to disseminate amongst the physicians of this coast its insulting information in regard to insurance examinations, we have taken the liberty of reproducing the circular letter which this concern is sending out and present it to you herewith for your consideration.

Several things about it are of interest. In the first place, we note that the reduction in fees for life insurance is made "by order of the president." The "president" is a gentleman by the name of Paul Morton, who, during his connection with the Santa Fe Railroad Company, entered into certain illegal contracts regarding rebates, etc., for which he was only saved from criminal prosecution subsequently by the kindly intervention of Mr. Roosevelt. Unfortunately, at the time that the rebate matter came out, Mr. Morton was a member of Mr. Roosevelt's cabinet.

We understand that he is endeavoring to struggle along on the pitiful salary of $60,000 a year (or is it $80,000?), and in his distress we certainly extend our sympathy. Doubtless it is for the reason that he is forced to live on such a small income that he now asks the physicians of the country to get along with somewhat less and thus endeavor to reimburse the company for its loss due to the vast sums which have been stolen from the policy holders by the officials who in the past have had charge of the company.

Are you going to contribute to this fund? Or are you going to advise the Equitable Life Assurance Society that you have too much self-respect to accept this reduction in compensation?

MEMBERS AND EX-MEMBERS OF THE PROPRIETARY ASSOCIATION OF AMERICA.

Below is a list of the twenty-seven firms who were written to in December, by the Publication Committee of the State Society. Their names had appeared in the list of members of the Proprietary Association of America, published by the *Journal A. M. A.*, and they were requested to set forth an explanation of their somewhat equivocal position, for it is now pretty generally recognized that the Proprietary Association is strenuously fighting the efforts to remedy the nostrum evil, of the American Medical Association.

Unfortunately, the entire correspondence is too voluminous to publish. Some of it would undoubtedly be of considerable interest to our members, and some of it would probably be found very amusing. One or two firms seemed to resent our respectful inquiry as impertinent. Why, forsooth, should the humble and groveling physician dare to ask impertinent questions as to the business methods of his owner? All that is necessary for the physician to do, is to go right ahead and mind his business and believe what he is told. Questions are impertinent!

We take pleasure in announcing that the following firms have signified their resignation from the Proprietary Association of America: Fairchild Bros. & Foster, N. Y.; the Fellows Mfg. Co., 26 Christopher st., N. Y.; E. Fougera & Co., 26 N. William st., N. Y.; Kress & Owen Co., 210 Fulton st., N. Y.; The Fraser Tablet Co., N. Y.; Mariani & Co., 52 W. 15th st., N. Y.; The Purdue Frederick Co., 298 Broadway, N. Y.; Schieffelin & Co., 170 William st., N. Y.; Geo. C. Fry, Portland, Me.; Horlick's Food Co., Racine, Wis.; Johnson & Johnson New Brunswick, N. J.;Keasbey & Mattison Co., Ambler, Pa.; Lambert Pharmacal Co., St. Louis, Mo.; Mellier Drug Co., St. Louis, Mo.; Mellins Food Co. of N. Am., Boston, Mass.; Micajah & Co., Warren, Pa.; Schlotterbeck & Foss Co., Portland, Me.; Smith, Kline & French Co., Philadelphia, Pa.; The H. K. Wampole & Co., Philadelphia, Pa.; The Alkalol Co., Taunton, Mass.

The following firms have advised us that they still retain membership in the Proprietary Association, so we may regard them as endeavoring to controvert the efforts of the medical profession to put a stop to the fraudulent nostrum business: The Chas. N. Crittenton Co., 115 Fulton st., N. Y.; Seabury & Johnson, N. Y.; The Cystogen Chem. Co., St. Louis, Mo.

The following have not considered it necessary to do us the courtesy to reply: Geo. J. Wallau, 2 and 4 Stone st., N. Y.; Arthur Peter & Co., Louisville, Ky.; Katharmon Chem. Co., St. Louis, Mo.; The Wyttenback Chem. Co., Evansville, Ind.

THOMAS KELLEY, M. D.

In Memoriam.

On Wednesday, the fourteenth day of February, at his home in San Jose, our colleague Doctor Thomas Kelley passed to his rest after having almost reached the allotted span of "three score years and ten."

To those of his intimate professional brethren his sudden taking off, while it came with shock, occasioned no surprise. To the trials, hardships and exposures he endured in the service of his country we may attribute the remote cause of that disease which parted him from us in the midst of his usefulness.

In life Doctor Kelley was no ordinary man: no common-place physician. In both it was given him to excel. We may leave it to his former comrades in arms to extol his patriotism, to tell again of his virtues as a soldier and recount his deeds of valor while we speak of him as he abode with us.

Doctor Kelley received his degree of "Doctor in Medicine" from Rush Medical College of Illinois on the first day of February in the year 1871. Coming to California in 1876 he began practice in this community and at once established a reputation for learning and skill in his profession. He was one of the original members of this medical society in 1876, and served it faithfully in all capacities and as an honored president. Much is due to his efforts for the present existence of our medical practice law. At our meetings and social gatherings he was ever present until a few years ago when the malady from which he suffered became so marked that his further regular attendance was rendered impossible. Nevertheless his continued interest in our work was always manifest. Doctor Kelley was a gentleman of the highest type of manhood at all times and in all places. He was one of those in our profession who pursued a strictly ethical course of conduct in his relations to other physicians and to the many of the laity he was called to serve. As a physician and surgeon his great ability and ripe experience were eagerly sought in our counsels. His life was pure, unselfish and generous. Although he endeavored to conceal his gifts he was noted for his professional charities to the poor and destitute. To his host of friends he was loyal. To his family he showed his loving character and left no care undone which would add to its comfort and happiness.

In this memorial hour may each of us resolve to cherish all the good and noble of which we knew him to be possessed. May we strive to practice more and more those precepts of uprightness in our own professional lines of which his life was a daily example. Out of the abundant love in our hearts for the father let us extend to the children our deep sympathy for their loss and may the memories of his goodness and greatness solace them in their grief and lighten the night of gloom, and as a token of our esteem as well as of our own sorrow let this tribute to his many virtues be inscribed on a memorial page in our records of this society.

The above Memorial, written by the president of the Santa Clara County Medical Society and presented by the first vice-president, Doctors J. L. Asay and I. N. Frasse, respectively, was unanimously adopted by said society at a regular session held February 21, 1906, and it was further ordered that a copy of the same be spread upon the records of the society and copies be forwarded to the family of the deceased colleague and to the STATE MEDICAL JOURNAL.

[redacted]

Explain to your friends and patients that practically every newspaper in the United States is a silent partner in the nostrum fraud business. That it is bound to silence and to aid in defrauding the people into using alcoholic nostrums by the following clauses in its advertising contracts with the nostrum trust:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper, in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See *Collier's Weekly*, Nov. 4, 1905.)

COUNTY SOCIETIES.

Santa Cruz County.

The regular meeting for the month of March was held on the 12th with an excellent attendance. Dr. Chas. Anderson resigned as secretary and Dr. H. E. Piper was elected to fill the unexpired term. Three new members were elected—Drs. Piper of Santa Cruz, Briggs of Watsonville and Burbank of Coralitos.

The following clinical cases were brought up and discussed by the society: One, "Sarcoma of the Bladder"; two, "Diabetes"; three, "Menorrhagia"; four, "Posterior Urethritis" in patient sixty years of age.

Contra Costa County.

The Contra Costa County Medical Society met in the office of Dr. George at Antioch, February 25, 1906, with Dr. C. L. Abbott in the chair.

The following were present: Drs. Abbott, Mead, Barney, F. Rattan, Blake, J. W. Key, Brown, Hammond, Lucas, George, Martin and DeWitt.

The following motions were passed:

That meetings of this society be held on the last Sunday of each month.

That a committee of three be appointed to formulate a new set of by-laws that will be in harmony with the State Society. The following were appointed on the committee: Drs. Rattan, George and DeWitt.

That the secretary be instructed to purchase a duplicator.

J. WALTER KEY, Secretary.

Tulare County.

In response to a call from the Secretary of the State Society, a meeting of the physicians of Tulare county was held at the Palace Hotel in Visalia on February 16th. A good attendance was present and the general purposes and outline of the present organization movement were thoroughly discussed, after which it was unanimously decided to organize the Tulare County Medical Society.

Organization was immediately effected and the following officers elected: President, Dr. W. W. Cross of Visalia; vice-president, Dr. J. B. Rosson of Tulare; secretary, Dr. M. L. Pettit of Visalia; delegate to the State Society, Dr. R. E. Bering of Tulare.

It is gratifying to know that meetings of this society are to be held every two weeks and that a systematic scientific work is to be undertaken by the society.

San Joaquin County.

The regular monthly meeting of the San Joaquin Medical Society was held February 23rd at the office of Dr. Ira B. Ladd. Dr. Chas. R. Harry in the chair. The following members were present: Drs. R. B. Knight, W. J. Young, J. P. Hull, W. W. Fitzgerald, W. S. Snedigar, Ira B. Ladd, C. R. Harry and B. J. Powell; Drs. E. L. Blackmun and Hudson Smyth as guests.

It was decided that a committee of three, consisting of Drs. Hull, Young and Ladd be appointed to revise the fee bill of the San Joaquin County Medical Society and to report at the next regular meeting; after the acceptance of the same that each member be required to sign his name endorsing such fee bill. Drs. E. L. Blackmun of Stockton, J. Audley Young and J. Goodwin Thompson of Oakdale were elected members of our society.

Dr. Ladd first presented for the consideration of the members present a case of leukoderma with exophthalmus. The subject of his paper was a report of a case of large cystic degeneration of the kidneys. The diagnosis, as the doctor proved by the authorities presented, was made in the usual way, at the postmortem. Both kidneys were presented for the inspection of the members. The discussion was opened by Dr. Fitzgerald and followed by the members and guests present.

BARTON J. POWELL, Secretary.

Orange County.

The Orange County Medical Association met in regular session at the residence of Dr. Freeman in Fullerton, March 6th. There was a good attendance of members and three visitors. Acting on the suggestion of Dr. Jones during his visit recently the society decided to organize clinical clubs as auxiliary to the county society. For the present it was thought best to organize two only, one for Anaheim, Fullerton and vicinity, and one for Santa Ana, Orange and vicinity.

Letters were presented from different insurance organizations notifying their examining physicians of a reduction of fees. The society unanimously voted in favor of a resolution to maintain a $5.00 rate for all old line companies; also making it an offense for any member to accept appointment where the former examiner had been dismissed on account of the reduced fees.

Dr. Chas. C. Browning read a very interesting paper on the "Early Diagnosis of Tuberculosis," maintaining that the diagnosis should be made from the symptoms and physical signs before it is possible to find the tubercle bacilla in the sputa.

After adjournment, Dr. and Mrs. Freeman served a delightful repast and all went away feeling it was good to be there.

H. S. GORDON, Secretary.

Ventura County.

At the Rose Hotel, Ventura, Monday evening, February 26th, a meeting of the Ventura County Medical Society was held.

Dr. P. M. Jones, secretary of the Medical Society of the state of California, San Francisco, was the guest of the society and the orator of the occasion.

He told his hearers of the earnest work being done everywhere, especially in California, by the medical profession, in warning the public of the very grave dangers of the use of advertised nostrums, manufactured by ignorant pretenders having no knowledge of medicine, and the use of which has certainly caused many sudden deaths, occurring daily, and with increasing frequence, and physicians could not be too emphatic in their condemnation. Dr. Jones referred with great satisfaction to the great work for humanity accomplished by that great journal, *Collier's Weekly*, in exposing the patent medicine trust, as well as the rottenness of so many newspapers, and high public officials as well.

It was the duty of physicians to be active in the discharge of their civic obligations, to further the enactment of laws best calculated to preserve health and prolong human life.

The meeting was well attended, and was followed by a banquet, which was enjoyed by all.

At the conclusion, the society gave a vote of thanks to Dr. Jones for his masterly address.

CHARLES TEUBNER, Secretary.

San Bernardino County.

The regular monthly meeting of the San Bernardino County Medical Society was held in the Y. M. C. A. parlor, Redlands, February 14th. The president, Dr. Blythe, called the meeting to order at 2 P.M., with the following members present: Drs. Abbott, Champion, Hurley, Thompson, Bennett, Blythe, Shreck, Pound, Burke, Taltavall, Moseley, Ide, Evans, Hutchison and Strong.

Dr. E. W. Burke of Highland, and H. F. Andrews of San Bernardino were elected members of the society. The application of Dr. Osborne was received

and referred to the Board of Censors, to be acted upon at the next meeting. A letter was read from the secretary of the Santa Barbara County Medical Society giving a brief outline of their method of conducting the society and asking for suggestions.

After other routine business was disposed of Dr. Champion read a very interesting and instructive paper on "The Mayo Clinics." Dr. Abbott followed with a very valuable paper on "Diet in Disease."

Dr. Moseley made a motion that hereafter all papers read before the society become the property of the society and that they be published at the direction of the society.

The meeting then adjourned to meet in Colton March 14th and decided to invite the members of the Riverside County Society to meet with us at that time.

D. C. STRONG, Secretary.

Humboldt County.

At the January meeting of the Humboldt County Medical Society the following officers were elected: President, George N. Drysdale; vice-president, H. G. Gross; treasurer, C. O. Falk; secretary, J. H. Mallery; delegate, Geo. W. McKinnon; alternates, R. E. McKibbon, J. S. Menefee.

The following committees were appointed: Program and Scientific Work, Drs. Mallery, Felt and Mills; Legislation and Public Health, Drs. C. C. Falk, Sinclair and Hill; Entertainment, Drs. Dorais, Marshall and Thompson.

The following letter was adopted and sent to all druggists in the county:

To the Druggists of Humboldt County.

Gentlemen: Realizing the enormity of the patent medicine evil, in all its phases, and fully appreciating the immense power which the retail drug trade may yield in this connection, the Humboldt County Medical Society begs leave to address you. We would ask that in order to overcome this great evil, to stop, if possible, the wholesale formation of chronic alcoholics and drug tiplers, the retail druggists of this county set the example to the state at large by discouraging to the greatest possible extent the sale of all patent or secret medicines, offering for sale instead preparations of their own manufacture, of known formula and merit. In return the members of this society agree to adhere as much as possible to the preparations official in the United States Pharmacopeia in prescribing and to discourage to the fullest extent the use of all secret nostrums prepared for prescription use.

We as physicians wish to see this great evil stopped. It works great injury to both of our professions, but the public suffers most of all. We ask you to work with us in this matter, that it may be said that in Humboldt county the pharmacists and physicians are standing together and working hand in hand for the general good.

Hoping for your co-operation, and looking toward a closer union between the two professions, we are,

Yours sincerely,
Humboldt County Medical Society,
J. H. MALLERY, Secretary.

Santa Barbara County.

The Santa Barbara County Medical Society held its regular monthly meeting on February 12, 1906, at the Arlington Hotel, adjourning to Dr. Conrad's office. Present, the regular members; visitors, Drs. J. Ewing Mears of Philadelphia, and William Thomas Corbett of Cleveland. The meeting was called to order by the president, Dr. W. B. Cunnane. Reading of minutes of last session. The retiring president, Dr. Flint, spoke briefly, urging the society to advance along certain proper and needful lines. The newly elected president, Dr. Cunnane, followed with an interesting address. He said in part that he was a believer in sectional work—and to this end would appoint chairmen of different sections in medicine and surgery. He urged that every gentleman connected with the organization contribute his part toward making it a professional, social and intellectual success, and in order to accomplish this we must lay aside our personal prejudices and petty jealousies. With harmony and unity as our watchword success is assured. The Society next listened to a fine paper by Dr. J. Ewing Mears from Philadelphia, Prof. Surgery (Emeritus) Jefferson Medical College. The title of Dr. Mears' paper was "Reminiscences in Surgery," The Doctor touched upon the introduction of anesthesia in the United States, the entrance of aseptic and antiseptic methods; and his meeting Lord Lister in Philadelphia in 1876. Dr. C. S. Stoddard of Santa Barbara, followed Dr. Mears with an able and practical paper on "Existing Relations Between Physicians and Druggists." The Doctor so forcibly brought out the disgraceful and baneful condition of counter prescribing prescription repeating and other unethical methods of many pharmacists, as to rouse the Society to a warm and animated state of indignation. Much discussion followed ending with the unanimous passing of a suitable resolution looking to the correction of such abuses. The subject of Physicians' fees on program was only partially discussed owing to the absence of Dr. Anderson. The question of receiving into Society any legally qualified physician regardless of school practice was forcibly acted upon, and the President then announced the various sections for scientific work, and the meeting adjourned to meet March 12, 1906.

WILLIAM T. BARRY, Secretary.

San Benito County.

The San Benito County Medical Society met at the residence of Dr. J. H. Tebbetts on February 22nd, with the president in the chair.

Dr. R. G. Curtis, formerly of the Hawaiian Territory, made application for membership and was duly elected. An amendment of the by-laws was introduced by the secretary as follows:

Resolved, That Section 2, Chapter II, of the by-laws be amended to read, "A meeting shall be held at 8 P. M., on the first and third Thursday of each month." This was unanimously adopted.

The next order of business being the election of officers, Dr. F. O. Nash was elected president, Dr. J. D. Ball, vice-president; Dr. J. M. O'Donnell, secretary; Dr. R. G. Curtis, treasurer. Dr. J. M. O'Donnell was elected censor for one year and Dr. L. C. Hull for three years.

Contract lodge work was discussed in detail by all present, and a committee was appointed to draft resolutions abolishing such work and to report at the next meeting. Drs. F. O. Nash, J. H. Tebbetts and R. G. Curtis were appointed such committee. The society then adjourned to meet March 1st at the residence of R. G. Curtis, the president in the chair.

After the call to order the following resolutions were read and unanimously adopted:

Whereas, It is a well-known fact that the practice of medicine under the conditions that prevail in so-called lodge practice is injurious to our profession, both as a whole and as to individual members, be it therefore resolved by the San Benito County Medical Society that it is the sense of this society that members decline all appointments to lodge or similar society practice; be it also further resolved that any member now holding such contract relations resign such appointment upon the expiration of his present term.

A motion to amend the fee bill was then introduced as follows:

Resolved, That a sum of not less than $5.00 be the minimum fee for life insurance examinations and not less than $3.00 for fraternal insurance associations, and that mileage of $1.00 one way for each mile

over three miles from town be added on such insurance examinations.

Dr. L. C. Hull was elected as delegate to the annual meeting of the State Society and Dr. J. H. Tebbetts as alternate.

J. M. O'DONNELL, Secretary.

Riverside County.

One of the most interesting and best attended meetings of the Riverside County Medical Society was held on the evening of February 12th at the home of Dr. W. B. Sawyer.

Our new president, Dr. Martin, occupied the chair and called the meeting to order. After reading of the minutes and communications, the report of the auditing committee for the past year was read and accepted. Considerable discussion followed concerning examinations for life insurance. A certain company claiming to write cheap insurance with a small weekly payment and asking only a perfunctory report on the general state of health, for which it could not pay more than 50 cents, had requested some of our members to examine for them. On Dr. Sawyer's motion the society resolved that as far as this society is concerned such examinations are on a par with all others and shall be held to the minimum fee of two dollars.

City Health Officer Roblee asked the co-operation of the members in making his monthly reports to the State Board.

As a result of the success of the semi-social features of our meetings, which have been held at the homes of the members for the past three years and have ended in banquets, it is no surprise that we feel a longing for more frequent meetings. After discussion of some of the plans recently published in the STATE and A. M. A. journals, a committee was appointed to work out a plan for weekly or bi-weekly meetings which shall take on more of the nature of study classes. We hope to have a continuous post-graduate work going on all the time.

The first paper of the evening was by Dr. Parker on the subject "Burns—Skin Grafting." After speaking of the desirability of maintaining asepsis in these wounds, and deploring the fact that so often in our anxiety to relieve the sufferings of our patients at once we rush on most anything which is convenient, he told us of the success which he had enjoyed with the use of a simple steril "salt solution" dressing. He simply saturates gauze with this solution and covers it with a mass of dressing and bandage, and then has the nurse keep this dressing moist with the solution by pouring it onto the dressing from time to time. This he thinks will answer fully as well as the picric acid dressing which leaves such a disagreeable stain upon everything with which it comes in contact.

He described the different methods of skin grafting, speaking with great satisfaction of the use of Cargile membrane as a covering of the Theirch grafts.

A very animated discussion followed which brought out many interesting experiences.

Then being the time for refreshments, we repaired to the dining-room where we all did full justice to the elegant repast tendered by Mrs. Sawyer.

Upon reconvening we listened to a paper by Dr. Griffith on "A Case of Abdominal Tumor," which proved upon removal to be a cyst of the lesser omentum. He described well under what difficulties good work can be done. This patient was operated upon in a private house out on the Imperial desert, and made a very satisfactory recovery.

As further evidence that a kindly brotherly feeling had been instilled into the company by the social amenities of the occasion, it was resolved to have a regular banquet at the Victoria Club at the next meeting, and a committee was appointed to execute plans for the same.

C. VAN ZWALENBURG, Secretary.

Placer County.

The Placer County Medical Society met in Colfax, March 3d.

Dr. Peers read a very able paper on "The Prophylaxis of Tuberculosis." In brief the paper covered the hygiene of everyone, especially those predisposed to tuberculosis; this applied to both house hygiene and to food hygiene. Every public room or building should be supplied with wide-mouthed spittoons which should be filled with some antiseptic, but patients suffering from tuberculosis should be warned not to use these, but each should carry in his pocket a flask made for the purpose. If the patients are confined, spit-cups of the usual pattern may be used. Toilet paper or even Japanese napkins are excellent as they can be burned immediately after use. In coughing a handkerchief or at least the hand should be held before the mouth and the hand should be thoroughly disinfected afterward. All house linen is to be sterilized frequently and the hands must be washed before eating. Masks should be worn over the mouth saturated with some mild antiseptic, the patient being told that the inhalation of the drug is beneficial, the real object being to protect others from the invisible sputum.

Legislative measures must be advocated, registration of all consumptives is necessary and the patient's family given printed instructions. One most important point that the doctor emphasized was the following:

"In Colfax one sees consumptives from all over the states. Of patients who have consulted specialists in the East, hardly one is told not to swallow his sputum; this I consider to be one of the most important points in the prophylaxis of the consumptive."

The doctor had some drawings made of various receptacles for sputum. An animated discussion followed the reading of the paper.

Dr. White of Auburn read an excellent paper on "Autointoxication," the subject was taken in its various phases and the treatment of each was proposed; dieting, intestinal antiseptics, and colon irrigating were advocated for this trouble when caused by intestinal fermentation.

Dr. Fay presented his "Experience and Conclusions in Handling Quinsy." In reviewing the treatment of this trouble during the last century Dr. Fay has arrived at the conclusion that to-day we are no nearer helping the patient than they were in 1800. The contents of the Pharmacopeia are useless and very rarely can one reach the abscess with the knife; all that one can do is to make the patient as comfortable as possible and wait for the pus to evacuate itself. The salicylates have not proved very much good in his hands.

Dr. Jones said that he had always looked on quinsy as a purely surgical disease and had treated it as such.

The various members present also gave their experiences with this very troublesome disease.

Dr. Schnabel of Newcastle presented two pathological specimens and demonstrated the use of a pair of hysterectomy forceps that he had had made in Germany and that he had found more suited to his purpose than the ones usually sold in the instrument stores. He also demonstrated a pair of self-retaining retractors that he had constructed out of steel bicycle wire and that he had found very useful in emergency work.

Dr. Peers entertained the society and provided a banquet for which a vote of thanks was passed. The evening in every way was a great success.

The next meeting of the Placer County Medical Society will be held at Rocklin, Placer county, on the afternoon of April 28th. Dr. Henderson of Sacramento has kindly consented to read a paper at that meeting.

J. H. MULES, Secretary

Santa Clara County.

The regular meeting of the society for February was held on the 21st in the parlors of the St. James Hotel, San Jose. The following attendance was noted: Doctors Wright, Harris, Marvin, Fraser, Burns, Jordan, Witter, Grissim, Frasse, Paterson, Wagner, Simpson, Cothran, Paul, McMahon Newell, Osborne and Asay in the chair.

The following were elected to membership: Dr. E. A. Kelley, Agnews; Drs. Caroline L. Avery, Wm. E. Keith, John McMahon, Chas. A. Wayland, Edna M. Greenwood, L. T. Brock, S. B. Lyon, Ed. Ulrich, San Jose; Dr. Clara A. Silvia, Gilroy.

Dr. Frasse, first vice-president and chairman of special committee on membership made the following report:

"Mr. President and Gentlemen:—Your committee on membership has met on several occasions and concurred in the drafting of a circular letter, appended, of which a copy has been sent to every physician of the county whom it was considered desirable to secure as a member.

"'Dear Doctor:—It is well known to you as to all of us that the medical profession of Santa Clara County has been for many years divided into many factions. There is room in the County Medical Society for any school or system of medicine if practiced honestly by a qualified physician and we, the membership committee of that society, unite in urging you, as an honest and qualified physician, to join the society.

"'Because the profession will accomplish more if it is a unit.

"'Because we want your council and advice.

"'Because with a united body it means the practice of Santa Clara county for Santa Clara county practitioners.

"'Because we want you to unite with us in fixing a reasonable Fee Bill which you and all of us can and will maintain.

"'Because we believe your interests are ours and ours are yours.

"'Personal differences with any member should not keep any one out of the society. You will call into consultation only those with whom you are friendly and your influence in the society may be just what is needed to change the methods of the member with whom you differ.

"'A unanimous personnel of the county society is desirable that we may be in line with the recent organization of the profession as laid down by the American Medical Association and which is being adopted all over the state. Such a unit may more effectually combat the many and various evils that now harass and threaten us and act as detriments to the public at large, and so that petitions sent to our legislative bodies regarding measures necessary to our welfare may represent the opinion of a body of men whose desires are to be respected.

"'It is the desire of the executive committee to make the meetings of the society the equivalent of a post graduate school; to be addressed at times by the leading men of the state upon topics upon which they may be considered authorities, and most of all to engender a spirit of good-fellowship among us, such as should exist among members of our profession. The yearly dues are five dollars which covers membership fees in the county and state societies and eligibility to membership in the American Medical Association. It also includes the subscription price of the STATE JOURNAL OF MEDICINE, issued monthly (a high class journal *not dominated by any drug firm*), and the Register and Directory of Physicians and Surgeons of the state of California, Oregon and Washington.

"'Application for membership may be sent to any member of the committee or to any officer of the society.

"'(Signed)

IRWIN N. FRASSE, M. D.
LINCOLN COTHRAN, M. D.
J. F. BURNS, M. D.
WILLIAM SIMPSON, M. D.
W. W. FRASER, M. D.
J. D. GRISSIM, M. D.

"'Your committee is now engaged with the kind assistance of our president, in numbers of two or three, in making personal visits upon the various physicians about town.

"'Respectfully submitted, etc.'"

The president announced the death of Dr. Thos. Kelley of San Jose, a member of this society since its organization, and reported the action taken in having the society represented at his funeral. An eloquent memorial prepared by Dr. Asay and presented by Dr. Frasse was adopted and ordered spread upon a memorial page of the records of the society, copies of the same to be prepared and forwarded to the family of our deceased colleague and to the STATE JOURNAL OF MEDICINE.

The secretary called attention to the 30th anniversary of the organization of the society and suggested that the executive committee take up the matter of arranging for a banquet in the near future preparatory to a fitting celebration of the event. So ordered.

Dr. Lincoln Cothran presented a paper entitled "Some comments on the workings of the Medical Practice Act." The paper was a vigorous defense of the Act, and sustaining the Board of Medical Examiners in their efforts to keep high the standard of examinations and to exclude incompetent and insufficiently qualified practitioners. The subject and the paper were discussed by Doctors McMahon, Newell, Paterson, Jordan, Wright, Marvin, Burns Osborne and the president.

The proposed new constitution and by-laws was ordered the special order for business for next meeting and Dr. Jordan gave notice that the executive committee had arranged a Symposium on Eye and Ear work for the scientific program for next meeting, to be presented by Doctors Wagner, Simpson, Smith and Jordan.

The meeting of the society for March will be held at the St. James Hotel, San Jose, on Wednesday evening, the 21st instant, at the hour of seven o'clock. As matters of unusual importance will be presented a full attendance is requested.

A. E. OSBORNE, Secretary.

San Francisco County.

The meeting on the 13th of February was called to order at 8:45 P. M., Vice-president Gibbons in the chair, the president being detained at the directors' meeting. Later in the evening the president took the chair.

The following was the program of the evening:

"The Role of Hydrotherapy in Chronic Diseases"—Dr. Simon Baruch, of New York.

"The Dietetic and Physical Treatment of Cardiac Dropsy"—Dr. A. Perry.

The Committee on Admissions reported the following men elected members of the society: Drs. Chas. H. Whitman, John C. Newton and Howard Somers. The president announced them duly elected members.

The following applications for membership were read: Drs. W. B. Kearney, Alvin E. Cerf, Richard Dowdall, W. E. Rumwell, Harry Horn, David Stafford.

The meeting adjourned at 10:30 P. M.

Dr. Sampson, discussing the paper read by Dr. Baruch: I am very much interested in this subject, especially with its use in bronchial diseases. This use of cold water in most bronchial diseases is a most efficient remedy. The system can be put into shape

and the patient can be cured. The methods which the doctor has used and the precision which is emphasized are the means by which good results can be obtained. Sciatica is a good illustration of the sort of disease which can be treated. Of course, there is no certain line of treatment to be used for all patients. In hydrotherapy you have to study your patient. There is no remedy which requires so much observation and careful application of the treatment to each individual patient. Not only a recognition of the special diseases but all conditions of the patient have to be taken into consideration. Recently I treated a patient with asthma and bronchitis. In using the cold treatment I found out that I could not get any reaction; every application simply made the patient colder. It is very interesting to watch the result that can be brought about by a graduated process of increasing the applications. Using the hot water first then gradually colder. In three weeks the patient could stand any amount of cold water and the asthma and bronchitis entirely disappeared. The reaction was most positive. I wish to emphasize the necessity of the study of the patient and careful application and outlining the routine treatment and carrying it out in detail. Good results can be brought about in nearly all chronic cases.

Dr. Parsegian: I think that hydrotherapy can be used for many purposes. As the doctor mentioned, it is like a drug. One can bring on stimulation, a sedative effect, etc., as indicated. Duration of the treatments is an important factor. We see that the result obtained in the asthma case, of which the doctor has just spoken, was due to a peculiarity of the nervous system. The shock in most cases is one of the most beneficial things.

Dr. Rosenstirn: There is one thing in the very able paper of Dr. Baruch that I would like to have had him talk more about, and try to institute in all cities. That is the institution of a corps of regularly schooled nurses to apply the hydrotherapy methods. Our patients, unfortunately, are not rich and many do not go to hospitals. These matters can only be done by a well educated, trained person. We put our patients at their homes in the hands of their friends or relations who are easily tired of doing the things mapped out, especially the necessary details in the exercise of hydrotherapy methods. As we have not a regular school corps of nurses conversant with these methods, I think one of the necessary and very urgent applications of hydrotherapy methods cannot be fulfilled. I would like the doctor to exercise his energy in that direction. Nurses should know the applications and doctors should be able to simply write prescriptions as for medicines to do the drip sheet method, the wet cloth method or whatever is necessary, and save him the time of explaining it all each time. That is just why hydrotherapy has not been taken up. It takes too much time and has not been made easy for the doctors.

Dr. Evans: This is a subject in which I am very much interested, having seen Dr. Baruch in New York and having followed out a certain amount of hydrotherapy in my practice. I would add a suggestion to Dr. Rosenstirn's talk, that a movement be put on foot for introducing into our medical schools, if necessary, chairs in hydrotherapy, so it can be taught to our medical students. Those in hospital service are impressed by the fact that our internes come from these medical colleges with very hazy ideas about the action of water.

Dr. Power: The remarks made by Dr. Evans are quite true. We do need that this method should be taught. The use of hydrotherapy would be more general if more knew about it. The great difficulty in introducing it into the colleges is the time it would take. We are all short of time in nearly all the medical schools in the United States. If another chair is added to the course, it would be impossible to carry it out. We need, and should have, if not a full chair, some instruction, if only a few lectures.

Dr. Baruch: I have nothing much to say as the opinion seems to be quite in the line of my own recommendations. There is only one especial point that is not quite appreciated, perhaps, as I stated it. With regard to the training of nurses, that I have spoken of in my paper. With regard to taking it up in the colleges, it would not require a chair on hydrotherapy, merely a few lectures, perhaps half a dozen, with clinical demonstration. The student will never learn unless he handles it himself. I teach them thus at home, and there are always one or two technical points to be brought out and the class appreciates it when I make the men do it over and over again. Anyone can read a book on hydrotherapy and follow it. Some ten years ago Thomas suggested that a chair be put in the college at home, and they claimed they were overcrowded as it was. About two months ago Lambert found that the curriculum was not overcrowded and he aroused them to the fact that it was better to teach hydrotherapy.

* * * * *

Meeting of the Directors of the County Medical Society.

Meeting called to order at 8:20 P. M., February 13, 1906, President Terry in the chair.

Those present were: Drs. W. I. Terry, D'Arcy Power, J. H. Barbat, P. K. Brown, C. M. Cooper, D. Tait, W. S. Thorne, F. B. Carpenter, Wm. Ophuls, Geo. Blumer, Henry Gibbons, Jr., H. Morrow, C. Levison, H. M. Sherman, P. M. Jones, Geo. Evans.

The minutes of the last two meetings read and approved.

Dr. D'A. Power presented a report of the Committee on Ethics. It was moved that the report be received and placed on file. Motion carried.

Dr. P. M. Jones reported for the committee appointed to consider the advisability of having more frequent meetings as follows:

1st. That another scientific meeting be held in addition to the regular meeting held on the second Tuesday of the month; that this additional meeting be held on the fourth Tuesday of each month.

2nd. That the additional scientific meetings be devoted to general discussions or symposia on various subjects, to be determined and selected.

3rd. That arrangements be made for meetings to which prominent attorneys, judges, etc., be invited, and also other meetings to which representatives of the ministerial profession be invited.

4th. That a special committee of three be appointed to have charge of these special meetings and to conduct systematic efforts toward better organization in San Francisco. This special committee to work with the Executive Committee of the society.

5th. That provision should be made in some way for supplying the newspapers of the city with reliable statements in regard to public health matters and similar information which the public should receive, and which can only be given to it by the medical profession. This is hardly included in the resolutions creating the committee, but it seems to be in line with some of the work hereinbefore recommended.

Dr. Jones moved that this report be adopted. Motion carried.

Dr. Sherman requested that the recommendations of this report be read again. This was done and they were discussed seriatim.

Dr. Carpenter moved that the first recommendation, establishing meetings twice a month, be adopted. Motion carried.

It was moved and seconded that the second recommendation be adopted. Motion carried.

Moved and seconded that the third recommendation be adopted. Motion carried.

Moved and seconded that the fourth recommendation be adopted. Motion carried.

Moved and seconded that the fifth recommendation establishing a press committee be adopted. Motion carried.

Dr. Evans moved that a press committee of three be appointed in line with the suggestion of the last recommendation be adopted. Motion carried.

Dr. Jones moved that the secretary be instructed to purchase a scrap book and in that scrap book there be pasted any clippings from the daily papers referring to any of the members of this society. A space is to be left after each clipping in which the member involved can write his defense. This scrap book to be placed in the library for the inspection of the members. Motion carried.

Dr. Blumer requested that the Library Committee be allowed $800 for current expenses in the next six months.

Dr. Jones moved that the Library Committee be allowed $800 for the next six months to be used for payment of salaries, payment of rent, etc. Motion carried.

Dr. D. Tait resigned as delegate from the State Society, nominating Dr. Brunn in his place. Resignation duly accepted and Dr. Brunn was duly elected to fill the vacancy.

Meeting adjourned.

PAST PRESIDENTS.

As this is the semi-centennial of the State Society, it may be of interest to our members to recall the names of those who have, in the past, guided the society through its many storms and stresses and into the comparatively quiet waters of the present time. We therefore give a list of the past presidents of the society; those marked (*) are deceased.

Year.	Place of Meeting.	Presiding President.
1856	Sacramento	*B. F. Keene
1857	Sacramento	*H. Gibbons
1858	San Francisco	*A. B. Stout
1859	Sacramento	*R. B. Ellis
1870	San Francisco (Incor. Nov. 1)	*T. M. Logan
1871	San Francisco (Mar. 1)	*T. M. Logan
1871	Sacramento (Oct. 11)	*T. M. Logan
1872	Oakland (October)	*H. Gibbons
1873	Sacramento (April)	*G. A. Shurtleff
1874	San Francisco	*T. H. Pinkerton
1875	Sacramento	*J. M. Browne
1876	San Francisco	*A. B. Nixon
1877	San Francisco	*Wm. Fitch Cheney
1878	San Jose	*Washington Ayer
1879	San Francisco	H. S. Orme
1880	San Francisco	*A. W. Saxe
1881	San Francisco	*F. W. Todd
1882	San Francisco	G. G. Tyrrell
1883	San Francisco	*L. C. Lane
1884	San Francisco	*Iva E. Oatman
1885	San Francisco	*R. Bev. Cole
1886	San Francisco	*W. P. Gibbons
1887	San Francisco	W. S. Thorne
1888	San Francisco	*R. H. Plummer
1889	San Francisco	*Jas. Simpson
1890	Los Angeles	Walter Lindley
1891	Sacramento	W. R. Cluness
1892	San Francisco	O. O. Burgess
1893	San Francisco	W. E. Taylor
1894	San Jose	C. G. Kenyon
1895	San Francisco	G. L. Simmons
1896	Los Angeles	Wm. LeMoyne Wills
1897	San Francisco	Henry Gibbons, Jr.
1898	Fresno	*Cephas L. Bard
1899	Del Monte	Wm. Watt Kerr
1900	San Francisco	*Geo. Chismore
1901	Sacramento	*Thos. Ross
1902	San Francisco	Wm. J. G. Dawson
1903	Santa Barbara	F. B. Carpenter
1904	Paso Robles	H. Bert. Ellis
1905	Riverside	Frank L. Adams

COMMUNICATIONS.

Fraudulent Subscriptions.

To the Editor of the STATE JOURNAL: We notice in your issue of February, 1906, a paragraph concerning a fraudulent subscription solicitor who has been soliciting subscriptions to *Sunset Magazine* and other periodicals from doctors in the southern part of this state.

We first heard of this man's actions in January and succeeded in locating him in Los Angeles. We had him arrested and he was tried, found guilty and sentenced to five months' imprisonment, which sentence he is now serving.

We have been placing upon our complimentary lists all doctors and others who have been defrauded by this man, not because of any liability on our part, but because we feel we can better afford to place the doctors upon our lists than to have them prejudiced against *Sunset*. We are writing Doctor Gordon making this offer to him, and if you learn of any other doctors who have been defrauded, you will confer a favor upon us by sending us their names. Yours very truly,

JAS. HORSBURGH, JR.,

A Denial.

To the Editor of the STATE JOURNAL: In your March number you have reprinted an article published in the *Medical Record* of Jauuary 13, 1906, in which reference is made to criticisms advanced by friends of the College of Physicians and Surgeons of Los Angeles, against the State Board of Medical Examiners. The name of the College of Physicians and Surgeons of San Francisco has been brought into the discussion. I wish to assert that this College has had nothing whatever to do with the discussions and criticisms carried on between the College in Los Angeles and the State Board, and I regret exceedingly that our name should have been used at all in this connection. We have no quarrel with the Board of Medical Examiners. We know nothing whatever of the merits or demerits of the criticisms and discussions above referred to. We prefer to be left out of the matter entirely. I hope you will do us the favor aud the justice to give this communication publicity in your April number.

Yours very truly,

D. A. HODGHEAD, Dean.

* * * * *

[Another correction in the article quoted from the *Medical Record* is furnished by the following personal letter from the President of the Board of Examiners to the Dean of the College of P. and S., San Francisco.]

MY DEAR DOCTOR HODGHEAD: In reply to yours of yesterday, permit me to state:

1. Life is too short and too busy for one to reply to every attack or to correct every error that may reflect upon oneself.

2. I have never publicly or privately expressed any opinion derogatory to either the P. and S. of Los Angeles or of San Francisco. In the former college I happen to have half a dozen old and valued friends—in its faculty. In the latter, Morton is the only man I know, and Morton has treated me with more than ordinary courtesy.

3. If I have any grudge against either college, which I have not, I am not fool enough to make the assertion credited to me, as president.

4. As a member of the Board of Examiners I do not discriminate for or against any college, nor do I think any one ever seriously accused me of doing so.

5. I am not the member of the board referred to in the article you mention. The latter part of that article clearly shows that the examiner in pathology was intended by the writer. Unfortunately for the

state, that examiner is not now president of the board. The writer got mixed.

6. During two years of somewhat intimate association with the examiner in question, Dr. Dudley Tait, I have never heard him express the views attributed to him in said article—nor do I believe he ever did.

7. You are at liberty to use this statement as you please. I can only add that as an examiner my experience with applicants from your school has given me no occasion to discredit the institution in any manner.

8. I have never met you, but as a delegate to the Santa Barbara meeting I felt it to be my duty to vote against you, which I did. At the same time I greatly admired your pluck in making a fight you knew to have been lost from the start. You put your back to the wall and made a talk that won the admiration of all who were not too prejudiced to appreciate its bravery. I have since then hoped for an opportunity to meet you and I still look forward to the pleasure of a personal acquaintance with you.

Very sincerely yours,

JOHN C. KING.

Small Fees Dangerous.

In reply to the circular letter giving notice of the cut in fee for examinations for the Mutual Life of New York, one of its former examiners has sent the following letter:

Brandreth Symonds, M. D., Medical Director N. Y. Mutual Life Ins. Co.—

DEAR DOCTOR: Your communication of February 15, 1906, relative to medical examiners' fee, received.

I wish to assure you and your company that it is the most decided disappointment I have so far received concerning the Mutual. Not that the few dollars less which I, as one of your medical examiners, will receive from you will materially affect my financial standing, but for the following reason:

Some years ago, when first beginning business, I felt that I should always carry as much life insurance as I could conveniently; naturally the next thing was to select what I thought to be the best company; I staked my judgment on the Mutual. Do you know anything about how a man feels when he finds that his judgment has stood him in error?

I have from time to time taken out a small policy with your company, until now the total amount is $16,000.00; to-day, sir, upon reading your letter I felt qualmish, experienced the first doubt as to the wisdom of my investment. Such questions as these came to mind:

Can any life insurance company hope to attain to a high measure of success without the ready cooperation of the *very best* medical talent in the land? Can this be secured by a remuneration of a paltry three dollars for work that requires from one-half to one hour? Are the *very best* medical men so trivially paid by any other class of patrons? If the company cannot secure the most desirable class of medical men to work for it for three dollars, why not make the fee one dollar (and save more)? the woods are full of "doctors" who will work for one dollar. And if you cannot afford the best, is it worth while having a medical examination at all? The company would probably exist for an uncertain length of time if it accepted risks without examination. Do you get the full value of a poorly paid laborer in any line of work?

Did the Mutual Life Insurance Company arrive at its present standing as one of the most stupendous financial institutions in the world through a parsimonious line of dealing with its medical examiners in the past?

Now please be assured that merely for the loss of two dollars on an occasional examination I should not have wasted time on this communication, but from the standpoint of a man who has for several years past been making payments on what he thought to be a good thing, I am thoroughly aroused. I am anxious. A ship that continually puts to sea without proper examination of the hull is liable to sink; a life insurance company that carries a line of poorly paid medical examiners—well, just contemplate the possibilities!

You refer in your communication to this being "A purely mutual organization"; now as one of the company, I want to be heard; please be good enough to read and digest this yourself, and then pass it along.

And as a final suggestion I would say, that if you wish to promote the prosperity and solid standing of this company, face about and do all in your power *to secure the adoption of a uniform fee for medical examiners of ten dollars.* Tell the officers to practice retrenchment among the sinners; and not to take away the loaf from the poorest paid, and at the same time the most important branch of your organization. I am, my dear sir,

Very sincerely yours, — — —

Enucleation Questioned.

To the Editor of the STATE JOURNAL: Kindly grant me space for a few lines of comment on one topic in Dr. Frank Allport's article in your February issue regarding treatment of ocular injuries, for I believe that his advocacy of enucleation for panophthalmitis is decidedly apt to do harm with less experienced operators. Every one is, of course, agreed with the doctor in his absolute statement that meningitis from panophthalmitis is extremely rare. I must confess, therefore, to be at a loss to understand him when he says almost immediately afterwards, "Cases of purulent panophthalmitis rarely produce meningitis, as before this calamity occurs the pain and suffering become so severe as to induce patients themselves to be quite willing to be relieved by an enucleation." Ever since von Graefe in 1863 reported the first two deaths from meningitis after enucleation for panophthalmitis, ophthalmic surgeons have held that the operation under such circumstances is a most dangerous undertaking, risking, as we are putting it nowadays, the entrance of micrococci (pyoceanei and pneumococcus) into the (rigidly) open lymph and blood channels. Otto Becker's* critical statistics of 43 deaths from meningitis after enucleation have established the great danger of the operation in panophthalmitis.

If we could always determine clinically whether in a case of panophthalmitis we are still dealing purely with a uveitis suppurativa, not having involved the sclera and especially not yet having reached Tenon's capsule and the general orbital tissues (causing proptosis), we could say that enucleation for simple uveitis suppurativa is justifiable, whilst on the other hand most dangerous in the extended forms of panophthalmitis. Since it is impossible, however, to thus rigidly draw the line between intra and extra-ocular panophthalmitis, we must declare against enucleation as a general method.

Exenteratio bulbi if done *lege artis* i. e., antiseptically and without leaving anything behind of the uveal tract, but anticipates the phthisical stump as the result of spontaneous healing of panophthalmitis, hence must offer the same safeguard against meningitis, and against sympathetic ophthalmia as well, which latter occurs but extremely rarely after panophthalmitis either. Respectfully,

C. S. G. NAGEL.

From a therapeutic viewpoint it is a great error to class rheumatoid arthritis as rheumatism, since in its treatment the use of tonics, a liberal diet, electricity, and massage are indicated rather than the free administration of the salicylates, which at best only relieve the pain.—*International Journal of Surgery.*

*Die Universitaets—Augenklinik in Heidelberg. 1888.

MEDICAL SOCIETIES.

CALIFORNIA ACADEMY OF MEDICINE.

Meeting held January 20, 1906, the president, Dr. P. K. Brown, being in the chair.

Atheroma of the Aorta. Dr. Wm. Ophüls demonstrated specimens of atheromatous aorta which had been injected at blood pressure with paraffine. Contrary to Thoma's contention, these show no bulging of the muscle beneath the atheromatous plaques. Since they were taken from an early stage in the disease, they show very clearly that the thickening of the intima is not caused by any primary weakening of the muscularis. The newer histological methods favor the view that arterio-sclerosis is an inflammatory condition.

Genu Recurvatum. Dr. H. M. Sherman showed a boy, 15 years old, who suffered from an extreme genu recurvatum. As an infant he had had a spinal kyphosis that had been cured by a plaster jacket. A little later he developed a tuberculosis of the left knee joint. At 8 years au erasion of the joint was done and two later operations were performed on the knee, in one of which the external popliteal nerve was cut. The deformity of the knee is extreme and is increasing and the boy suffers pain after walking a few blocks. Dr. Shermau stated that in his owu experience an erasion of the knee joint is practically always followed by a tendency to flexion, which latter takes place even though the joint be in splints. This flexion proceeds to about 35° and then stops. It is much less likely to take place if the continuity of the extensor tissues over the front of the joint be preserved. The patient here exhibited reverses the ordinary rule and shows extension instead of flexion.

Dr. Rixford stated that the radiograph shows that the line of the lower end of the femur is obliquely placed, the posterior edge of the femur projecting downward farther than the anterior. We cannot tell whether this resulted from an extensive operative excavation of the anterior part of the femur, from an absorption of the anterior part of the bone, or from an excessive growth of the posterior portion. The after treatment of the case may have been such that the knee tended to sag as it would if the leg had been supported by the heel. Similar deformities occur not infrequently when fractures of the leg are treated by Plaster of Paris spliuts.

Hydrocyanic Acid Poisoning. Dr. T. C. McCleave reported a series of cases of hydrocyanic acid poisoning that had resulted from the attempt to exterminate the roaches in a lodging house. The poisonous fumes diffused to distant parts of the house, especially through an open clothes chute. The patient most severely affected stated that after noticing the odor of the gas, she felt nauseated and dizzy and then vomited profusely. After a brief period of fullness and whirling in the head, she became unconscious. When discovered shortly after, she was extremely cyanotic, the mucous membranes were injected, and the muscles rigid. Urine was voided involuntarily. She remained unconscious for about eight hours. She was given artificial respiration, oxygen, and the usual cardiac and respiratory stimulants. Epinephrin, in the form of adrenalin chlorid solution, 45 minims, seemed to determine the recovery more than did anything else. Headache, nausea, and vomiting persisted for some days. The cyanosis also lasted for some days and seemed to be dependent on changes in the blood itself. In addition to this patient, all who had assisted in removing her from the room were more or less affected, being prostrated with headache, vertigo, nausea, and vomiting. The blood examination of one of these showed 4,000,000 red cells; 9,000 leukocytes; and a normal differential count. The urine was scant and smoky but showed no albumin.

Dr. Rixford spoke of the value of epinephrin in surgical shock. He has seen the blood pressure rise markedly after injections of this substance, and in one case in which strychnine and salt solution had been previously administered, he felt confident that the epinephrin solution had saved the patient's life.

Dr. Ophüls stated that the action of epinephrin solutions in large doses seems to be very uncertain when injected into rabbits. On one day a rabbit will tolerate a certain dose very well; whereas on the next day it will succumb in a few minutes to the same dose from the same bottle.

Thyroid Operations. Dr. W. I. Terry reported a series of nine operations on the thyroid gland with no deaths. Eight of these patients had more or less severe syuptoms of exophthalmic goitre and all were improved as a result of the operation. In several, the X-ray and the serum treatments had been previously tried without success. In all the right lobe was much larger than the left. The operation was essentially that elaborated by Kocher. A local 1% cocaine or eucaine anesthesia was employed and the speaker felt confident that the pain during the latter parts of the operation were not to be measured with the dangers of a general anesthetic. In one patient while tying the inferior thyroid artery, the voice suddenly became squeaky and it only needed a readjustment of the ligature to free the nerve which was not itself seen. The collar incisiou was preferred both because it gives a better exposure of the gland and because it leaves a better cosmetic result. The individual vessels were isolated and tied. As a rule the stump of the gland was cauterized with carbolic acid and a small drain was left in for 24 hours.

Paroxysmal Tachycardia Associated with Exophthalmic Goitre. Dr. P. K. Brown reported in detail one of the cases that had been operated upon by Dr. Terry. A woman, 41 years old, gave a history of paroxysmal tachycardia siuce she was 12 years old. One of her children also has these attacks. She was observed in several paroxysms of tachycardia, during which her pulse rate reached 280 per minute. Gradually a small goitre developed associated with tremor, general nervousness, pigmeutation of the skin, and marked general weakness. Over a period of two years, she was treated with various medical remedies, including two kinds of dried serum from thyroidectomized animals and the X-ray, but without any other effect than could be accounted for by the rest in bed. After a part of the gland was removed she improved immediately and considerably.

Dr. Cheney stated that he had treated six cases of exophthalmic goitre with thyroidectine and that in four the results have been very satisfactory. The nervousness, tachycardia, exophthalmos, and tremor have all disappeared. The goitres however have remained. In one of these cases the remedy has now been suspended for three months and no symptoms have recurred. Many cases of exophthalmic goitre seem to run a self-limited course and if the symptoms can be relieved the disease will terminate of itself. Others must come to the surgeon but the operation should be a last resort and should not be performed until medical treatment has been given a fair trial.

Dr. S. Stillman stated that he has now under his charge for other conditions two patients who had previously suffered from exophthalmic goitre with enlargement of the thyroid, rapid pulse, and tremor. They had both recovered spontaneously. He is not in favor of early operations on comparatively mild cases.

Dr. E. Rixford advocated the use of thyroidectine as a preliminary to operation. By its use the danger of the operation may be materially reduced; especially when the tachycardia improves and the heart recovers its tone.

Dr. Dudley Tait stated that he had recently visited Jaboulay's clinic in Lyon and had seen some of the results that follow sympathectomy. The exophthalmos and enlargement of the thyroid are nearly always improved. Patients with marked nervous symptoms and those with pronounced tachycardia are not considered favorable subjects for this operation. The operation is comparatively free from danger. The difficulty with local anesthesia in this country is that the people do not realize the dangers of general anesthesia and are not tolerant to pain. For this reason many operators find it necessary to use ether in goitre operations.

A. W. HEWLETT.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

Regular meeting January 18, 1906, Dr. George Merritt in the chair.

"The Adjusting of Eye-Glasses and Spectacles," Dr. George Brady.

Dr. Brady called attention to the necessity of the oculist understanding the underlying principles of this subject. Usually the optician has this part of the prescribing of glasses entirely in his hands. All of us get cases where it is advisable to give the optician exact instructions in regard to the necessary changes and, for this reason, a working knowledge of the subject is indispensable. The doctor explained the technical procedure of fitting, having numerous frames to make the work practical.

Dr. Pischel said that he considered this the work of the optician and sends his patient back as often as he finds that the glasses are not properly adjusted. In this way the optician is made to realize the importance of his work, and thus becomes educated to the fact that a little care in the beginning will save him extra work.

Dr. Eaton mentioned that often there exists assymmetry of the face, with the result that one eye is nearer to the nose than the other. This point is frequently overlooked by the optician.

Dr. Brady, in closing, said that he has noticed this assymmetry of the face repeatedly; in fact, it is the rule, and not one face out of twenty is really symmetrical.

Dr. Eaton described a case of injury to the eye. The patient came, complaining of pain in an eye which had been injured with a piece of glass six years before. The glass had cut the cornea and sclera over the ciliary body, and had evidently penetrated into that region. The bulbus was tender to the touch and atrophied. Enucleation was recommended. A piece of glass was found in the orbital fat, and it was necessary to go behind Tenon's Capsule. After 48 hours the stump was movable in the usual way but, instead of being cup-shaped, was rather convex or pushed out. The next morning he was informed that the patient had convulsions, epileptoid in character, during the night, and extreme pain in the stump. This latter was now collapsed and a thin serum-like substance exuded. He had no further symptoms, the orbit healing promptly.

Dr. Nagel wished to know whether the man had ever had similar fits.

Dr. Franklin said that a temporary pressure extending to the brain cavity could explain the condition.

Dr. Eaton, in closing, explained that as he went behind the capsule slight sepsis might have been present with increase of the arachnoid fluid, thus causing the convulsions by pressure. The symptoms subsided as soon as the stump drained.

Dr. K. Pischel showed the following case: Patient, a miner, was injured about one year ago by the explosion of a blast in a quartz mine. He was treated in Denver; the inflammation passed off and the patient returned to his work. Examination showed scar in the center of the cornea of the right eye, iris adherent to same. Hanging to the iris is a small piece of quartz, ½ mm. in diameter. Pupil covered partially with a secondary cataract, substance of lens absorbed, with clear space remaining in the upper portion. In the cataract fine sand. Disc shows some whitish scars, and below a tear in the choroid. X-Ray picture was taken in Denver and three opacities were seen. The question is: "Are we to attempt operative removal of the foreign bodies and failing enucleate the eye or leave the eye alone"?

Dr. Eaton would leave the eye alone if the man was sufficiently intelligent to return upon the first sign of irritation.

Dr. Nagel agreed with Dr. Eaton, and would leave the eye alone as long as there was no secondary glaucoma, shrinkage or other signs of active irritation.

Dr. Franklin thought that as the foreign bodies were attached to the iris it would not be difficult to remove them, and all that was necessary was removal of that portion of the iris containing the foreign bodies. The man being a miner and, through his occupation, living in remote places we should not subject him to the possibility of sympathetic ophthalmia without the proximity of a competent oculist.

Dr. Pischel, in closing, said that he thought the eye could stand these foreign bodies very easily and he would not suggest removing same. The man sees the movement of the hand readily and can distinguish fingers outwards and downwards.

Meeting of February 3, 1906.

The president, Dr. George Merritt, in the chair.

Dr. Fredrick reported "An Unusual Case of Mydriasis," saying that the patient, a man, presented himself with complete dilatation of the right pupil which had come on suddenly over night. The left was partially dilated. He was at a loss to know the cause; he had put nothing into the eyes, and nobody in the house had eye trouble. He had had a similar attack once before. Patient had asthma and was using a patent medicine for same. Such remedies often contain soda and belladonna. The circular read that when taking this medicine one must abstain from all alcoholics and patient remembered that he had taken a glass of wine after the remedy. The mydriasis was overcome with eserine. "We should all be on the lookout for similar cases of so-called 'Idiopathic Dilatation,' which in fact are due to some remedy which passes by unsuspected."

Dr. Martin reported two cases in which the mydriasis was caused by the use of suppositories for hemorrhoids.

Dr. Merritt remembered having seen bilateral dilatation after the use of belladonna-plasters applied to the back.

Drs. Brady and Pischel reported similar cases of bilateral dilatation due to the internal use of belladonna in some form or other.

Dr. Fredrick reported, "Darier's Results with Radium," saying in closing: "There are, at present, a large number of men experimenting in this direction but as radium is so expensive it is practically impossible for the individual to have some of it. I suggest that the society buy a small amount out of its funds and in this way open the field for further investigation."

Dr. Pischel showed the new chisels of Miles, of New York. They are particularly useful in sinus work, entering easily forward and cutting out a piece when pulled backwards. They are extremely useful within the sphenoidal sinus as the chisel enters easily and an assistant, by hammering, gets out a piece of the anterior wall. In operating on the antrum Dr. Pischel shoves back the mucous membrane, makes a small opening and then with the chisels, just described, enlarges same saving the membrane as much as practical. He has seen a case where the face was edematous the next day after the use of these chisels.

Dr. Welty considered these chisels too sharp for the sphenoidal cavity aud not suitable, as the wall is often as thin as paper and one is working close to the brain in a cavity already infected. He does not consider the opening of the antrum through the nose as sufficient but does the radical operation.

Dr. Philip thought that Miles' instruments were well adapted for this class of work and particularly in removing the anterior wall of the sphenoidal cavity. As these instruments cut principally backward and do not go upward he did not see how any of the important structures could be endangered.

Dr. Martin said that all instruments are dangerous in unskilled hands but that these instruments, though perfectly safe, would not help us much so far as the sphenoidal sinus was concerned. He thought the edge too round to cut into the hard bone at the base of the sphenoid.

Dr. Pischel, in closing the discussion, said that the question of danger in regard to these instrumeuts had been answered by Dr. Philip. One works only downward and outward with them. He does not consider them as sufficiently strong for the thick bone at the lower part of the sinus. Dr. Miles does not pull them out but has his assistant use the hammer backwards, in this way avoiding tearing the walls.

"A Persistent Case of Episcleritis," Dr. Geo. H. Powers. The patient, a woman about 30 years of age, came with the right eye showing marked episcleritis. She was well otherwise and examination showed no constitutional disease. Dr. Powers treated the patient on the assumption of rheumatism, giving large daily doses of the salicylates. After lasting seven months the eye cleared and patient has not had a return of the trouble. The case was peculiar inasmuch as there was no evidence of rheumatism, although treatment established that it was the cause of the condition.

Dr. Martin said that he had used dionin with good results, but cases of episcleritis are exceptionally obstinate to treat and some of them last seven or eight months in spite of the most approved treatment.

Dr. Barkan did not consider this an excessive length of time for such a malady and cited a case of his which resisted all local treatment and was cured only when sent to one of the Hot Springs with the resultant constitutional regime.

Dr. Nagel emphasized the necessity of keeping the possible luetic origin of this trouble before us. He had a case which resisted the usual salts and although lues was not marked the inunctions of mercury were immediately beneficial.

Dr. Eaton, mentioned that he had found two efficient remedies for this condition, one being colcichin, recommended by Darier, the other citarin. This latter remedy he uses in the most persistent cases and has seen it clear up an obstinate one in 48 hours.

Dr. Powers, closing the discussion, mentioned that he had forgotten to say that he had tried dionin without result and the case was presented as it differed, to his mind, from the ordinary episcleritis, which, at best, is a sluggish disease.

W. SCOTT FRANKLIN. Secretary.

THE PROPRIETARY MEDICINE FROM THE PHARMACIST'S STANDPOINT.

"In the eyes of the professional pharmacist, the physician prescribing any of these preparations is either an ignoramus or a charlatan, or both, mostly both. The pharmacist is compelled by law to be thoroughly familiar with the drugs he dispenses, and to examine them for purity, etc. The 'caveat emptor' of ordinary commerce is changed into 'caveat vendor' in the case of pharmacy. With chemicals, even of those protected by patent, which are really scientific discoveries, he can easily assume responsihility. Chemical tests are at his command. But what can he do with preparations which never had a chemical test, and never could have a chemical test, because they are mechanical mixtures, and because the manufacturers can and do change their composition at will. The M.D. who prescribes these preparations is on a par with the customer who buys Lydia Pinkham's, or Father John's, with this difference: that the layman who takes the statements of the manufacturer for truth pays for it himself, while the doctor makes the patient pay for it, and often gets a little rake-off from the manufacturer in the shape of discount.

Let us now view the effect which the prescribing of such remedies has on the three classes most affected.

First comes the physician. After the detail man or the manufacturer's ad. has insulted the M.D.'s intelligence by telling him what to prescribe, the manufacturer proceeds to separate the doctor from his patients in a most ingeuious manner. He tells the M.D. that to insure the genuineness of the preparation he must write for an original bottle. Right here he undermines his friend, the M.D., for before very long the article has been so well introduced by the aid of the guileless M.D. that the people buy it over the counter without paying the M.D. his fee for recommending it. This is the financial phase for the M.D.

There is also another phase. When the M.D. has become accustomed to let the detail man think for him, he has given up medicine thinking altogether. His first impulse after diagnosing a case is to call for some proprietary remedy, irrespective of what its actual constituents may be, without regard to idiosyncrasies in the patient and without the possibility of knowing what secondary effects that particular dope may produce. Often he is puzzled by what he supposes to be newly developed symptoms, which are nothing less than after effects from some of the constituents of the (to him) unknown remedy. The effect on the patient is a matter not to be lightly passed over. We pharmacists often have occasion to judge it.

I will relate an incident which happened not long ago in my store. A lady brought in a prescription asking for a proprietary tablet whose chemical test consists of the monogram on top. After receiving the medicine she opened the box, and on discovering that the tablets were old friends of hers, which she had been buying in 25-cent boxes over the counter. she said some very uncomplimentary things about the M.D., and wound up by declaring that hereafter she would consult a doctor who wrote 'real medicine.' The evil of self-medication is largely due and directly attributed to the prescribing of proprietary preparations by the M.D.

To compel the druggist to dispense preparations of this ilk, is to rob him financially and to insult him professionally. He is compelled to stock up on 40 to 50 acetanilid preparations, the numberless bromide mixtures, the legion of dope cure-alls, and simply because the physiciau is too indolent or too ignorant to compose his own prescriptions.

That there are a number of valuable preparations of proprietary origin, nobody will deny. That the M.D. has a right to use them in his daily practice is equally true, but it is up to the physician to differentiate between an ethical proprietary and a fake with a high-sounding name, and when in doubt there is always at the command of the practicing physician that great and, alas, often neglected, book, the United State Pharmacopeia."—P. J. Diner in *Am. Druggist.*

After removal of the appeudix symptoms of appendicitis sometimes persist, leading the patient to believe that the organ had not been extirpated. These are geuerally due to a colitis, which must be treated by high irrigations, diet, etc.—*International Journal of Surgery.*

PUBLICATIONS.

The Physical Examination of Infants and Young Children.—By THERON WENDELL KILMER, M.D., Adjunct Attending Pediatrist to the Sydenham Hospital; Instructor in Pediatrics in the New York Polyclinic Medical School and Hospital, New York; Attending Physician to the Summer Home of St. Giles, Garden City, New York. Illustrated with 59 halftone engravings. 12mo., 86 pages. Bound in extra cloth. Price, 75 cents, net. F. A. Davis Company, publishers, 1914-16 Cherry street, Philadelphia, Pa.

The recognition of disease in infants and young children depends almost exclusively upon objective study; therefore, the physical examination assumes even greater importance than in the adult. Textbooks do not always emphasize this sufficiently.

Dr. Kilmer, within the compass of a small manual of 86 pages, has very clearly brought out the salient features of physical examination in this class of patients. It is to be regretted that the plan of the book did not permit of more extended discussion of the topographical anatomy, menstruation, and other allied topics. Considered as a whole, the book will prove extremely useful to students taking up the study of pediatrics. A. J. L.

Lectures on Autointoxication in Disease, or Self Poisoning of the Individual.—By CH. BOUCHARD, Professor of Pathology and Therapeutics; Member of the Academy of Medicine, and Physician to the Hospitals, Paris. Translated, with a Preface and New Chapter added, by THOMAS OLIVER, M. A., M. D., M. R. C. P. Second revised edition. 342 pages, extra cloth. Price, $2.00 net. Philadelphia. F. A. Davis Company, 1906.

The second edition of this well-known book comes from the press without further original work by Bouchard. However, Oliver, the translator, has amplified the text to some extent, and has added an appendix in which the inter-relations of organs, and their roles in toxic conditions, are discussed.

Bouchard's book is the pioneer in autointoxication, and has done great good in stimulating thought in that direction. If any criticism be made it is that the work is not carried far enough. There is no field which offers more opportunity for biochemical research than autointoxication. With improved methods for isolating organic poisons, the etiology of many conditions, such as arteriosclerosis and some forms of cirrhosis of the liver and kidney, may be cleared up. Every student of medicine should have read this work, the clinician as well as the laboratory worker. The clinician particularly would be well repaid by the chapters dealing with the gastro-intestinal tract. J. B. F.

Neurotic Disorders of Childhood; Including a Study of Auto-Intestinal Intoxications, Chronic Anemia, Fever, Eclampsia, Epilepsy, Migraine, Chorea, Hysteria, Asthma, etc.—By B. K. RACHFORD, M.D., Professor of Diseases of Children, Medical College of Ohio. University of Cincinnati; Pediatrist to the Cincinnati, Good Samaritan and Jewish Hospitals; Member of American Pediatric Society, Association of American Physicians, etc. E. B. Treat & Co., New York.

Anyone who has had experience with infants and children must have been impressed with the physiological peculiarities of their immature nervous systems, and the bearing which these peculiarities have upon the production and individuality of the neuroses of childhood. This point was well illustrated by Dr. Rachford in a series of extremely interesting papers published several years ago. The importance of the subject is at once apparent; this induced the author to utilize them in revised form as the nucleus of the present volume.

The first part of the book is mainly devoted to a consideration of the role of various auto and bacterial intoxications in their etiology. Although we do not believe that all the statements should be accepted in toto, the point of view is very suggestive. The remainder of the book deals more particularly with the individual neuroses, such as eclampsia, tetany, enuresis, recurrent vomiting, chorea, habit spasm, etc.

Dr. Rachford's book is both stimulating and enjoyable. It is to be especially recommended to the general practitioner. A. J. L.

Nasal Sinus Surgery With Operations on Nose and Throat.—By BEAMAN DOUGLASS, M. D. F. A. Davis Co., Pub., Pa.

The author says, "This little work on Nasal Sinus Surgery has been written because of demands made for such a book by physicians who have worked under my directions."

This book is a welcome addition to the literature of sinus operations for there has been no complete work, in English, on this subject. The plates are an attractive feature of the work and assist the reader in comprehending the text; however, some of the half tones are lacking in clearness and might well have given place to a few schematic drawings. Favorite preparations of an author never have the same meaning to the public as to him who has labored over them and verified the landmarks with a probe. So much space has been given to the anatomical and historical notes that the descriptions of operations bear evidence of a desire to abbreviate at the expense of clearness. The description of the operation for opening the ethmoid cells is one of the best which the author gives us, the description being clearer than is to be found in any other text-book.

Enucleation of the tonsil is mentioned but this popular and valuable procedure is not described. the author still adheres to the tonsillotome and tonsil punch.

Five pages are devoted to a description of the operation for removal of adenoids of which, two pages are taken up by a description of its dangers. Whilst it is not well to minimize these dangers, they must be of rare occurrence as few operators have encountered them, and it would put a different complexion upon the indications for operation, if it were likely to be found necessary to "strip the larynx," "invert the patient," or "do tracheotomy." The author advises that the operator have always a tracheotomy tube at hand when operating.

On the whole the book is the best resume of the subject but is more useful in giving a general sketch of the subject than as a working manual for operators. A. B. McK.

A Manual and Atlas of Orthopedic Surgery, General and Special, Including the History, Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis and Treatment of Deformities.—By JAMES K. YOUNG, M. D. Illustrated with over seven hundred photographs and line drawings, mostly from original sources. Octavo. Cloth, $10.00; half morocco, $12.00 net. P. Blakiston Son & Co., Philadelphia, 1905.

This volume of rather encyclopedic extent and possessing some considerable interest as a dictionary, purports to be intended for the use of students and practitioners of medicine, but it can hardly be discussed as a serious exposition of modern scientific medicine. Taking the subject of hip disease, for instance, one is at once struck with the rather peculiar ideas of the author, which are not in accord with modern opinion. It is true that the author is a man of wide experience, but when he locates the primary focus in hip disease differently from the best authorities, when he states that thickening and hardening of the trochanter can be accepted as evidence of pus in the joint; that irritation of the tubercle bacillus generally causes lengthening of the limb; when one

sees the value he places on the X-ray for locating foci in the early stages, one wonders why he offers no evidence. These differences may, however, be explained perhaps by individual judgment, but when an author states in a modern text-book, without winking, that the pallor accompanying cold abscess is due to the increased number of white corpuscles in the blood—that phymosis is a factor of importauce in the etiology of hip disease—that hip disease is rather favorably modified by pulmonary infection—that syphilis of joints is often transmitted from grandpareuts, the parents being free, oue wonders with what old lady he collaborated and doubts the value of the book as a Manual of Orthopedic Surgery. As an atlas, however, it is good, numerous plates and good plates illustrating every section. There is rather a good article on scoliosis, the writer describing with much detail splendid systems of gymnastics, but here he fails to note the work of Schultheis and Wullstein, and the apparatus of Wullstein, which is probably the most efficient appliance towards the correction of scoliosis. The article on tendon transplantation is old and not given the importance it deserves, and the work of Lange totally ignored, and no mention made of the use of silk tendons. It is a pity that the vast material in the hands of the author did not receive some revision before this editiou was offered. The book looks well—the print is large and new, and although the proof-reading is careless, the work would be an ornament to any shelf. S. J. H.

Genito-Urinary and Venereal Diseases.—By J. William White, M. D., John Rhea Barton Professor of Surgery, University of Pennsylvania, and Edward Martin, M. D., Professor of Clinical Surgery, University of Pennsylvania. Illustrated with 300 engravings and 14 colored plates, 1092 pages. Sixth edition. Published by J. B. Lippincott Co., Philadelphia and London.

The review of a work of this size and extent, containing as it does such a complete and exhaustive study of this branch of surgery and covering over 1000 pages of concise, judicious and logical statements relating to the diseases of the genito-urinary tract and syphilis, must, owing to the space allotted for such purpose, be incomplete and superficial. In the preface the authors give us an idea of what we are to expect. We are to look for "such procedures and facts as have been proven worthy of general acceptance," and with this for their text one can see on every page of the book the authors' decision to "hold fast to that which is true."

The trend of modern surgery is toward conservatism, and if this publication had been written by men more theoretical than practical, a critical mind might believe that the so-called recent advances made along diagnostic and operative lines had not been sufficiently emphasized, for instance: the operative cystoscope is only mentioned in describing the varieties of cystoscopes, nothing being said about its uses.

Less than two pages is devoted to urethral catheterization and while the purposes and dangers of the operation are mentioned it would seem that more might have been written on this important line of work, for it is self-evident that to the proper diagnosis of kidney leslons a separate examination of each organ is essential.

Of cryoscopy very little is said. The instrument is not even described, and the authors evidently do not consider it ever being a popular method of diagnosis, stating that "the intricate technique, even in skilled hands, is subject to many sources of error."

The advice given regarding the use of the cystoscope is in keeping with the conservative idea which, as stated before, prevails in every chapter and which corresponds with the opinion of many other experienced urologists, viz: "It should not be used till other means, except exploratory incision, have been employed and the evidence obtained from them has been carefully weighed.

This is good teaching and makes the book particularly useful for the general practitioner, for if the use of the cystoscope had been inordinately praised, to the detriment of other careful methods, many inexperienced men would procure them, and damaged urethras and bladders would be even more plentiful than they are at present.

In the treatment of acute gonorrhea the same characteristic adherence to well-tried methods is particularly noticeable. In advising the selection of an injection they give us those formulæ which they state are "least irritating and most successful."

The irrigation method of treatment is carefully considered and the indications and contra-indications are well presented.

In studying the pathology of chronic gonorrhea the authors have followed closely the researches of Finger, and upon them have based their prognosis and treatment. This is, of course, the only practical, sensible method of dealing with this tiresome affection.

In comparing the chapter on syphilis in this edition with that of the third edition, published in 1897, one can see very little if any change in the text. It is evident that this publication was in the press before Schaudinn and Hoffman published their article on the spirocheta pallida.

A short section is devoted to the diseases of the ureter, wounds with methods of suture, stricture and calculus being dealt with quite fully. Considerable space is now devoted to the surgical diseases of the kidney, with liberal treatment upon the subject of their pathology. The description of operative methods is more minute than in other portions of the book. The so-called "renal epistaxis," often a puzzling condition, is not mentioned. Perhaps, too, the Edebohls' decapsulation for nephritis were better discussed in these chapters than elsewhere. Full justice is done the recent advances of kidney work, for example, Brödel's incision in nephrotomy.

The chapters following deal with the testicle. The anomalies are rather fully dealt with. In that portion devoted to acute and chronic inflammations it would seem that insufficient space is devoted to the hygieuic treatment of genital tuberculosis. Doubtless many patients who now come even for early operation could, in a large majority of instances, probably be permanently relieved without operation by being placed under proper sanitarium supervision. Tumors of the testicle receive cursory mention, followed by reference to scrotal diseases, hydrocele, etc. The remarks upon diseased conditions of the cord are needlessly drawn out and much repetition could be saved by more judicious arrangement.

In the chapter devoted to the prostate the inflammatory affections are duly dealt with. That portion dealing with enlargement of the organ has been completely rewritten and a splendid account of the pathology, symptomatology and treatment of this common distressing affection is very fully given. The operative technique is well and rather carefully described, embodying as it does the more recent procedures of various recognized surgeons. The author dismisses the controversy over choice of route in a few words. "The experience and aptitude of the operator, with the method to which he is accustomed, is of far greater importance in determining the choice of procedure than the character of the prostatic enlargement." In a masterly and conservative way White defends his operation of castration. Brief reference, perhaps too brief, is made to carcinoma of the prostate.

Regarding the use of the new form of index to which our attention is called by the publishers, one's opinion is naturally biased by the force of habit, and in consequence may be wrong. It is certainly a good synopsis of the book, and if one has plenty of time they could no doubt find the subject upon which they

desired information mentioned somewhere in the index. Under ordinary circumstances, however, a purchaser of a book does not desire to have his work increased, but rather diminished, by any changes made or innovations in the arrangement of an index.

One cannot but admire the book as being from a practical standpoint the best of its kind, particularly is this noted in the detailed definite manner in which the authors describe the symptoms of the various disorders and the clearness with which the differential diagnosis is outlined. G. H. R.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Allan, J. T. M., from add. unknown to 217 S. Broadway, Los Angeles.

Colburn, J. R., from Trust Bldg. to 515 Huntington Bldg., Los Angeles. Congdon, Maria Amsden, from 26 E. Colorado st. to 36½a Raymond ave., Pasadena. Hrs. 10-12 and 2-4. **Curtis, R. G.**, from add. unknown to Hollister.

Davidson, Anstruther, from 501 Laughlin Bldg. to 546 Wilcox Bldg., Los Angeles. **Dell, Lillian A.**, from 1084 Twelfth st., Oakland, to Agnew State Hospital, Agnew. **Dillingham, F. S.**, from 540 Douglas Blk., to 422 Merchants' Trust Bldg., Los Angeles. **Dodge, Clarence W.**, from 1169 Broadway to 1115 Broadway, Oakland. Hrs. 2-4 and 7-8. Dransfeld, C. S., from Lakeport, Lake Co., to 4160 Twentieth st., San Francisco.

Eddy, George S., from 2816 Central ave. to 408 Frost Bldg., Second st. and Broadway, Los Angeles. Hrs. 11-12 and 2-4.

Foster, Charles W., from San Pedro, Los Angeles Co., to Bolivia, S. A. **Foster, Ernest C.**, from College City, Colusa Co., to Winters, Yolo Co.

Gedney, Frederick M., from German Hospital to 1610 Van Ness ave., San Francisco. **Greenwood, Edna M.**, from add. unknown to 140 N. Third st., San Jose, Cal. Gresham, Arthur E., from Sierra Madre to 218 Pine ave., Long Beach, Los Angeles Co.

Hinkle, B. M., from Van Nyddock Appts., San Francisco, to New York. **Hirschfelder, Arthur D.**, from 1392 Geary st., San Francisco, to Baltimore. Hopper, W. C., from 21 Powell st. to St. Paul Bldg., 293 Geary st., San Francisco. **Hunkin, Samuel J.**, from 1616 California st., to 2135 Sutter st., San Francisco. **Hutchinson, George L.**, from Huntington Bldg., to Pacific Electric Bldg., Los Angeles.

Jacobs, Louis Clive, from 2101 Pacific ave., to 1253 Polk st., San Francisco. Hrs. 1-4 and 7-8.

Kellogg, W. H., from 267 Devisadero st. to 297 Devisadero st., San Francisco. Hrs. 1-3.

Leonard, Ethel L., from Douglas Blk. to Fay Bldg., Los Angeles. By appointment. **Libby, Arthur A.**, from 786 Orange Grove, Pasadena, to Bradbury Bldg., Los Angeles. Hrs. 10-12:30 and 2-4. Longabaugh, R. L., from add. unknown to Red Bluff, Tehama Co.

MacGowan, Granville, from 540 Douglas Bldg. to 422 Merchants' Trust Bldg., Los Angeles. **Mayne, Wm. H.**, from Huntington Bldg., to 223 Pacific Electric Bldg., Los Angeles. Hrs. 11-1 and 3-5. Meyer, Albert G., from 2808 Folsom st. to 2651 Folsom st., San Francisco. Hrs. 1-3 and 7-8. **Murrieta, Alfred J.**, from 765 College st., Los Angeles, to Jerome, Arizona.

Newton, John C., from 135 Geary st. to 293 Geary st., San Francisco.

Petch, L. G., from Eureka to Blue Lake, Humboldt Co. **Petch, Thomas R.**, from Eureka to Blue Lake, Humboldt Co. Hrs. 10-12 and 1-3. **Petter, Reginald S.**, from 1201 Central ave. to 853 Central ave., Los Angeles. **Porter, C. L.**, from add. unknown to Long Beach, Los Angeles Co. **Putnam, Harrison A.**, from County Hospital, Los Angeles, to Inglewood. Los Angeles Co. Hrs. 10-12 and 2-4.

Smith, Arthur M., from Los Angeles Hotel to 340 Douglas Bldg., Los Angeles. Hrs. 10-12 and 2-4. **Somers, Howard**, from add unknown to 391 Sutter st., San Francisco. **Scroggs, W. R.**, from Palo Alto, Santa Clara Co., to Westside Hospital, Tuolumne. Hrs. 10-12 and 2-4 and 7-8.

Thomas, Edw. M., from 439 Third st. to 509 -10 Examiner Bldg., San Francisco.

Utley, Jay H., from 939 S. Hope st. to 416 Bradbury Blk., Los Angeles.

New Names.

Brock, L. T., Porter Bldg., San Jose. Med. Dept. Univ. of Oregon, '97. (C) '97. Hrs. 10-12 and 2-5 and 7-8.

Burke, E. W., Palm ave., Highlands. Med Dept. Univ. Ill., Chicago, '01. (C) '05. Hrs. 8-10 and 2-4.

Bynum, J. C., Ventura. Coll. of P. and S., St. Joseph, Mo., '80. (C) '90. Hrs. 10-12 and 2-4 and 7-9.

Carveth-Higbee, Annie, 1240 S. Union ave., Los Angeles. Trinity Univ., '93. Toronto Univ., '93. Hrs. 1-4 and 7-8.

De Faria, John B., Grant Bldg., San Francisco. Med. and Surg. School of Lisbon, '96. (C) '05. Hrs. 10-12.

Martin, L. A., San Pablo. Coll. of P. & S., San Francisco. Hrs. 1-3 and 7-8.

Mead, Louis, Byron Springs. Coll. of P. and S., New York City, '02. (C) '05. Hrs. 9:30-11 and 1:30-3.

Reed, W. Boardman, cor. Sixth and Figueroa sts., Los Angeles. Med. Dept. Univ. of Penn., '78. (C) '99.

New Members.

Butte County—**Gatchell, W. L. F.**

Contra Costa County—**Dewitt, J. W.; Martin, L. A.; Mead, L. R.**

Los Angeles County—**Bacon, Chas. E.; Bock, Chas.; Brown, Geo. C.; Chapin, A. R.; Moore, Edw. C.; Porter, C. S.; Putnam, H. A.; Sherry, Henry; Wheeler, L. N.; Wood, Frank L.**

San Bernardino County—**Andrews, H. F.; Burke, E. W.**

San Francisco County—**Newton, John C.; Somers, Howard; Whitman, C. H.**

San Joaquin County—**Blackmun, E. L.; Thompson, G. J.; Young, Jas. A.**

San Mateo County—**Barret, Walter M.; Morrison, Norman D.; Ross, Jas. L.**

Santa Clara County—**Avery, Caroline L.; Brock, L. T.; Greenwood, Edna M.; Keith, Wm. E.; Kelley, E. A.; Lyon, S. B.; McMahon, John; Silvia, Clara A.; Ulrich, Edw. J.; Wayland, Chas. A.**

Sonoma County—**Kimball, M. V.**

Ventura County—**Bynum, J. C.**

Yuba-Sutter County—**Bissell, Nelson C.**

Deaths.

Bayley, Chas W., Oakdale.
Boynton, C. E., Redding.
Harris, Stephen M., Grass Valley.
Reid, Hiram A., Pasadena.
Risdon, Caroline A., Oakland.
Selfridge, J. M., Oakland.

Convictions in Los Angeles.

Apparently the physicians in Los Angeles did not like to have their city pointed out as the "Mecca of the quack," for they have taken steps to make this gentleman less comfortable than he has been wont to be for a long time past. Since the committee of the County Association took hold of the work, now but a few months ago, 13 arrests have been made, and of the number 6 have been tried, resulting in a conviction in each case. Mrs. S. J. Bridge, fined; E. A. Clark, fined; Wm. Lair, fined; H. C. Tripp, sent to jail; "Prof." M. Guilford, fined; "Dr." Manzeta, fined. Not a single case has thus far been lost, and we sincerely hope that they may have the good fortune not to lose one. Los Angeles, and the committee of the County Association, are to be highly congratulated upon this excellent showing. Keep up the good work, gentlemen, and get rid of all the quacks.

California State Journal of Medicine

ISSUED MONTHLY: OWNED AND PUBLISHED BY THE

Medical Society of the State of California

VOL. IV, NO. 5 MAY, 1906 $3.00 A YEAR

A SAD GREETING.

It was a very different sort of May issue we had planned. But as all the world now knows, our beautiful city of San Francisco has been wiped out of existence. The editor has been able to confer with but one member of the publication committee and a few of the delegates living in Oakland, and these have authorized the bringing out of this number in its present form. There is not a business house of any sort left standing in San Francisco—no paper house and no printer—so this number is printed in Oakland. The mailing list of the JOURNAL has also vanished, so that many exchanges and subscribers will not at once receive this issue. However, enough copies will be printed to supply all regular recipients in the course of time. We would respectfully request other journals to copy this statement and also say that no sample copies will be sent out. The present address of the JOURNAL, or rather of the editor, for the JOURNAL office is beneath the editorial hat, which was almost his only possession not destroyed, is 1230 Telegraph avenue, care Dr. Frank Adams, Oakland, California. Correspondents are respectfully warned, however, that their letters may not be answered immediately, for almost all typewriters have been destroyed and the whereabouts of our stenographer is an unknown quantity.

THREATENED LIBEL SUIT.

On April 14th we received a long telegram from Seabury & Johnson, threatening libel suit if we did not "retract" a statement made in the April issue to the effect that their house held membership in the Proprietary Association of America, that Johnson & Johnson did not and that we should give our support to the latter concern. On January 4th we received a letter from them in which they did not deny their membership in the Association representing so much of the "Great American Fraud," so we did not know they had resigned prior to April first. The question was submitted to the Council on April 16th, together with some editorial comment which was not in the nature of a retraction. The Council unanimously decided to publish all the correspondence between ourselves and Seabury & Johnson, together with the editorial matter submitted, and let them do whatever they chose. However, as the correspondence and the editorials, together with everything else the society owned except the account books, have gone up in smoke, we can only suggest to Seabury & Johnson that they go ahead and sue, and if they get a judgment perhaps the courts will allow them to attach the smoke yet hovering like a pall over what was once our property.

FUTURE ISSUES.

We desire to get out this May issue in its sadly abbreviated shape in order to let all whom it may concern know that while we are now sitting on the ashes of our former property and have nothing but a pencil, a piece of paper and some credit, the spirit of the physicians of California is in no wise daunted. When the JOURNAL was born, we were told that it could not live; but it throve and waxed lusty. Shall we allow the "devil on two sticks" to do what human scheming could not do—stop us? Hardly! As there will be a newer and a better and more beautiful San Francisco, so there will rise, Phoenix-like, we trust, a better and a more useful CALIFORNIA STATE JOURNAL OF MEDICINE. But we must needs ask your patience, for our troubles are mighty, and while they do not crush us, they weigh heavily. The June number will not be issued until it can come out in regular size and garb.

TO OUR ADVERTISERS.

All the world has extended its sympathy and its aid to stricken California, and never has general human sympathy been more gratefully received. Now is the time for our out-of-California advertisers to aid our society and its JOURNAL. We shall need every penny we can secure in the rebuilding of our JOURNAL and we ask you, gentlemen all, not to take cognizance of the fact that no advertising pages appear in this issue, but to allow us to charge you with the regular charge for your monthly advertising space. Your courtesy in so doing will be highly appreciated and we will endeavor in future issues to acknowledge your courtesy and your contribution to the relief of California, its State Medical Society and its STATE JOURNAL OF MEDICINE. If this is your pleasure, please so advise the editor.

SEMI-CENTENNIAL MEETING.

Undoubtedly the annual meeting of the Medical Society of the State of California for 1906—its semi-centennial—will remain forever the one most generally remembered. The registration book unfortunately is not at hand—one can only say that it once existed—but it is known that about four p. m. on Tuesday, April 17th, the first day of the session, nearly 300 members had registered. The program was unusually good; at least one copy is known to exist, and there may be others. The general session in the morning was well attended, the principal subject of interest being the report of the various members of the Board of Examiners. It seemed to be apparent that the administration of the present law was working satisfactorily in improving the standards of medical schools and in keeping out poorly qualified graduates.

In the afternoon four sections were in session: Surgery, Medicine, Urology and Dermatology, and Eye, Ear, Nose and Throat. The full programs in these sections nicely filled out the afternoon. In the evening the House of Delegates met and devoted its time to hearing reports and to a considerable discussion of the fee for insurance (life, not fire) examinations. The minutes of this session, together with the reports handed in, are not destroyed, but are somewhere near the Cliff House, and eventually will be published.

Everything promised an unusually harmonious and profitable meeting. Unfortunately our plans were not well adapted to those of the remainder of the universe. At 5:14:48 on the morning of the 18th, the city was wrecked by an earthquake which lasted but 48 seconds. This, to those in other places, is now but ancient history, but to those of us who went through that and all the following days of horror, it will never become ancient. Fire broke out in unnumbered places, immediately after the shock, and as nearly all the water supply mains had been broken, what the shock began the fire completed.

Shortly after 9:30 a. m. on Wednesday, the President, Dr. R. F. Rooney, the Secretary, Dr. Philip Miller Jones, and Drs. Jas. H. Parkinson and H. Bert. Ellis gathered on the steps of the wrecked Y. M. C. A. building and declared the Society adjourned sine die. The Secretary made three trips to the office, on the third floor, and saved the account books, minutes of the Council and minutes of the House of Delegates, together with some miscellaneous papers hastily gathered together. All advertising contracts, current vouchers, etc., are in a safe deposit vault, perfectly intact. When or where the next meeting of the Society will be held, no one knows; probably a meeting of the delegates will be called in due time. Even the whereabouts of the President, Dr. Rooney, are unknown to the Secretary.

Some buildings were burning fiercely within fifteen minutes after the shock, and within twelve hours one-half the city was a solid mass of fire. So fast did it spread that the fire raged as fiercely, seemingly, for blocks behind the fire line as it did immediately in the zone of devastation. In places it spread so fast that those escaping were caught and had to abandon the few effects they were endeavoring to remove. In the streets on the hills which were considered safe, whole train loads of personal

effects and household goods were burned.

It is in considering the small personal things that the absoluteness of destruction makes itself felt. One's bunch of keys, for instance. The office-building key—throw it away, the building is no more, and so the office key, and the desk, and the office closet. Next comes the house-door key—it, too, is useless, as well as the trunk keys. The club keys, too, can go, for the clubs are gone already. Shall I telephone? There is no such thing! Would I have a glass of water? In more than four-fifths of the city there is not a drop. On every side there is nothing but burned ruin and torn and twisted streets. Yet already are plans for rebuilding made; tracks for removing debris are laid into the heart of the ruin, and later, materials for the construction of a new heart of a new San Francisco will be brought in on them.

HELP NEEDED.

Several hundreds of physicians have lost all that they had in the shape of office equipment as well as, in many instances, their personal effects. The large number of people who have left the city, together with the inability of those who remain to locate their former physicians, will cause much distress. From the Secretary of the A. M. A. has come a welcome word of sympathy and assurance that aid will be secured. From Dr. Frank C. Todd has come a telegram to Dr. H. Bert. Ellis offering aid from the physicians of Minneapolis, and from Dr. J. N. McCormack has come a telegram authorizing the Secretary to draw on him for funds. All are gratefully acknowledged. Such funds as may be raised had best be sent to Dr. Frank Adams, 1230 Telegraph avenue, Oakland, an ex-President of the State Society, as the officers of the County Society have not yet been reached. Those who aid in this relief may rest assured that their contributions will be gratefully received and carefully expended. Donations of minor instruments and office necessities may also be sent and will be of value in helping to start some of the victims of our disaster.

Since the foregoing paragraph was written word has reached us that subscriptions are being collected in Chicago, New York, Brooklyn, St. Louis and other cities, and that the Journal of the A. M. A. has offered to receive and transmit subscriptions. The widely scattered physicians of San Francisco are being slowly located, and it is hoped that a meeting may soon be called at which plans for properly distributing the funds collected may be discussed and arranged. It has been suggested that all money advanced be in the nature of loans, to be repaid when possible, and that the sums thus repaid be put into a fund for reforming the library of the County Medical Society, which, of course, was totally destroyed. This is, of course, merely a suggestion, but on first consideration it seems to be a good one. As it will take time to arrange the details and as no time should be lost in remitting such sums as may be collected for this work, payments should be sent to Dr. Frank Adams as soon as possible.

THE REAL SUFFERERS.

Probably those who will feel the distress of the recent catastrophe most keenly are the members of the professions, and especially physicians and dentists. Most of these have limited incomes and most live up to them and have little, if anything, saved. The very poor are cared for now and will be, in all probability, until work is provided for them. The rich can provide for themselves, and do not call for our sympathy or our aid. But the professional man who has lost his all—his books, his office equipment, his instruments and his home—can hardly be placed in either of these classes. At the time of writing many physicians, taking no thought for themselves, are serving gratuitously and without hope of reward in the sanitary work of the city, and their immediate bodily wants are supplied. But as conditions settle down more and more to the normal their services will not be required, and in time they will suffer want. Many of them could re-establish themselves in time had they the necessary outfit, but all their equipment is gone. If every medical society in the country would make but a small contribution, and if every doctor who has instruments that he does not need, or office equipment that he can do without, would send them to his brother physicians in California, much distress will be alleviated. We do not ask for charity, but for that aid which will help men to help themselves.

STATE SOCIETY.

For the State Society we ask nothing. We began with nothing and hardly any advertisers that thought the JOURNAL would live a year. We are infinitely better off now that we have to make a second start, for we have a number of advertisers who believe in our work and in our future. Growth after this second incarnation, following a fiery germination, will be hard, but much easier than our first. Some of our advertisers still owe us money, and we will ask all of these to settle their accounts as quickly as possible.

OUR POLICY.

For nearly three years there has been no issue of the JOURNAL which did not contain some reference to the nostrum evil, and we cannot allow this sadly abbreviated issue to go to press without comment on that nasty business. Presumably there were many participators in the nostrum business who rejoiced to think that we were wiped out. If so their joy will be but short lived, for our policy will be unchanged. We expect to keep on fighting the nostrum graft and its detail nuisances just so long as we exist, or at any rate during the lifetime and control of the present editor and publication committee. Unfortunately, they have all survived the shock and the fire. We are battered and bruised and burned, but consoled with the thought that no part of our injuries came from the attacks of the "Great American Fraud," and that we have quite as much, or even a little bit more, than when we began to tell unpleasant truths. Be not elated, we shall continue.

BUSINESS OF THE SOCIETY.

When the session was adjourned on April 18th, it was understood that the President would call a meeting of the House of Delegates at some subsequent time for the election of officers and the transaction of business. At the present time such a meeting would be out of the question, but doubtless within three months it will be possible to secure the attendance of a quorum, and due notice will be given. For the first time in three years the secretary is unable to answer correspondents concerning the affairs of the society. He hopes, however, to be able to attend to all such matters in the course of the next six weeks. Be just a little patient, put away the "kicks" for just a little while, and our machinery will again be in operation. We are doing our mortal best to straighten out the tangle, and we ask you to help us by extending your patience and your consideration.

SEND IN YOUR PAPER.

When the JOURNAL resumes in its regular form we shall need contributions. We therefore ask all authors of papers, read or to have been read at the last meeting, to mail them as soon as possible to the editor, Dr. Philip Mills Jones, care Dr. Frank Adams, 1230 Telegraph avenue, Oakland.

California State Journal of Medicine.

Owned and Published Monthly by the

Medical Society of the State of California

PHILIP MILLS JONES, M. D., Secretary and Editor

PUBLICATION COMMITTEE

George H. Evans, M. D. A. B. Grosse, M. D.
W. Francis B. Wakefield, M. D. Harry M. Sherman, M. D.

ADDRESS ALL COMMUNICATIONS

Secretary State Society, - - 2210 Jackson Street,
State Journal, - - - San Francisco.
Official Register, - - -

Telephone, West 5975.

IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten.

Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. IV JUNE, 1906. No. 6

EDITORIAL NOTES.

A certain pharmacist in San Francisco was, like so many others, burned out by the fire in April. He resumed business before the smoke had blown away, but on entirely new lines. He decided to run his store, for at least six months, as a purely prescription pharmacy, consigning nostrums, "patent" medicines and sundries to the outside place where they belong. His experience is most interesting. Within the first week a prescription for "antikamnia" was presented. It came not from a quack, nor from an infant in the profession, nor from an ignoramus, but from a physician of some name and standing in the community! Probably there never has been a more disgracefully but consistently dishonest and fraudulent nostrum foisted upon our profession than this deadly "antikamnia," yet here is a physician, presumably a self-respecting gentleman, who continues to help along the fraud! And there were others as ignorant or as lazy who "prescribed"—forgive us the word!—other nostrums, to the discouragement of the pharmacist who wanted to do right. One day a woman came in with a prescription; it was filled and given her, but before leaving she asked for a bottle of a nostrum once popular with a certain class of physicians. Some kind friend had doubtless recommended it, and thus was she aiding (?) the physician. So it went until now the shelves of the "prescription pharmacy" look about as much like a department store as though the effort for decency had never been made. The attempt to be clean and decent was defeated by the very men who should have supported it—physicians!

WHOSE FAULT?

On April 18th the JOURNAL was forcibly ejected from its office in the Y. M. C. A. Building, and for two months and four days it was without office other than the very cramped quarters supplied by the "editorial hat." Once more, however, as the world has turned, the JOURNAL has a home of its own and the "editorial hat" hangs on a hook in the closet. The JOURNAL and the offices of the State Society are now located at 2210 Jackson street, San Francisco, and here all exchanges, communications, etc., should be sent. For two months our mail has been inflicted on Dr. Frank Adams, 1230 Telegraph Ave., Oakland, and upon the Athenian Club, Oakland. We desire to extend our sincere thanks to Dr. Adams and to the Club for taking us in; we'll promise not to bother our friends any more, if old Seismos will leave us alone and let us tend strictly to business. May we venture to ask our exchanges, friends, advertisers, and correspondents generally, to note the new address? 2210 Jackson street, *San Francisco*. It's a pretty good place to be in, even if it has been "knocked," "jarred," "roasted" and "burned up" by the elements as well as by the yellow press and the over-zealous pious.

OUR NEW OFFICE

Please Note our new address, 2210 Jackson street, San Francisco, California.

It is well nigh impossible for any one outside of San Francisco to realize all the difficulties encountered in the attempt to gather up the burned threads on the business loom. This word of polite request is addressed to our friends and correspondents outside of San Francisco, and if we merely say to you that the JOURNAL office and all it contained save our account books, has been destroyed, the simple statement will not mean very much. So we will be a bit more explicit. Please don't ask for back numbers of the JOURNAL, for there are none. Please don't ask for copies of the Constitution and By-Laws, or for back numbers of the Register of Physicians, or for programs, for there are none. In writing, please do not refer to any correspondence sent or received prior to April 18th, for all our correspondence is gone. If you wish to refer to anything in the way of correspondence prior to that date, please quote the letter or letters to which you refer. Please don't ask for sample copies until we have had time to dust off some of the ashes and find out just where we are. If you have written to us and do not get an answer by return mail, do not become enraged; be patient; about four sacks of mail accumulated before we had time to even begin to read the written word. Just a little thought along these lines will help us and will be appreciated. We ask the medical journals that receive this, please to publish a paragraph stating that we are trying to re-establish our mailing list and requesting all journals that formerly received our journal or should wish to exchange with us, please to indicate that fact by writing to us at 2210 Jackson Street, San Francisco.

PLEASE HELP

BOARD OF EXAMINERS

The next meeting of the Board of Examiners will be held on August 7th at San Francisco. At this time the credentials of all those who desire to take the examination must be on file and will be passed upon by the Board. The examination will be held two weeks later—August 21st—simultaneously, in San Francisco and Los Angeles. Some gentlemen from the South have asked that we extend to the board their thanks and appreciation for the courtesy of holding an examination in Los Angeles, for the convenience of Southern applicants. The board, we are advised, decided some time ago to abolish the holding of an examination in two places simultaneously, but the present unfortunate conditions in San Francisco led them to modify this decision, at least for the present.

IS THIS RIGHT?

When you buy from the grocer, do you tell him how much you are going to pay for sugar, or flour, or bacon? Do you generally allow your patients to say just how much they are going to pay? Are lawyers in the habit of allowing their clients to fix their own charges? Put this way, all these things seem absurd, yet that is exactly what has been done in our case. The old line insurance companies, with a brazen impudence that is almost hypnotic, have said to us, as to slaves, "We will pay you $3.00 for our examination—be thankful to get that much. Our high officials have stolen so much money that we must economize, and we believe that you doctors will take what we offer and say 'thank you.'" Are you going to allow the patient to fix the fee? Why not make insurance examinations for nothing? Why not do all your work for nothing? Why not live on sawdust—or starve?

PURE FOODS AND DRUGS

Wonder of wonders!—the Pure Food Bill has actually been passed by the Congress of the United States, and become a law! To be sure, it has required patient, persistent effort for nearly twenty years, but now that the end has been gained, who will stop to count the effort and the empty years? And it is, in some respects, a stronger, better law than we could have hoped. The term "drug," as used in the act includes "any substance or mixture of such substances intended to be used for the cure, mitigation or prevention of disease of either man or other animals." And just think about this, a part of the law in spite of all the efforts of the truly honest, patriotic, philanthropic and virtuously high minded members of the Proprietary Association of America to defeat it: A "drug" shall be considered to be "misbranded" and within the condemnation of the law "if the package fail to bear a statement on the label of the quantity or proportion of any alcohol, morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilide or any derivative or preparation of any such substance contained therein."

Here is food for thought for those who have deprecated the present agitation against the "great American fraud," and have claimed that nothing could be done against the wishes of the Proprietary Association of America. How about it, gentlemen? Will patience and persistence gain no results? Do you still think we shall be forever without success in the war against nostrum frauds in medicine, and the dishonest medical(?) journals which participate in the profits from, and keep alive, these nostrums? It is old and hackneyed and has been used, abused, misused and laughed at and scorned—but is it not true that "Truth is mighty and must prevail"?

MUCH YELPING

He of small consequence in the world is in no danger of being abused. We do not claim this idea as original, for the saying is old that "men may be measured by their calumniators, as steeples by their shadows." It is brought to mind by the yelping of the "yellow dogs" of the nostrum men, and by the howls of those commercially minded medical "editors" or publishers who feed from the same nostrum dish as the yellow dogs. They cannot find words or sounds or type enough to express their anger against the American Medical Association! It is everything that is bad. When it was a small and incohate handful of men, attempting to do no far-reaching work, the Association was safe from abuse. Now it is large and growing rapidly, and has undertaken to do a good deal of work—and so it is abused. But abuse is sometimes a pretty good thing. In this case it shows very clearly that the Association took up its work none too soon; and furthermore, it is gaining friends and members for the Association, faster than any other one thing. Probably the Proprietary Association, and its medical(?) journalistic friends, hangers-on and yellow dogs, will eventually make the A. M. A. bigger and stronger and more actively alive in things medico-sociologic than would otherwise have been possible. Whenever an "advance agent of the Proprietary Association" worms his way into the House of Delegates, as sometimes happens, and there exudes some of his mental slime, he but calls attention to the danger to our profession and our Association, from ignorance or forgetfulness, and cements in closer bonds, for the protection of the common good, all *honest* men. Consequently, he is useful, though he vents his spleen in lying about the A. M. A., for he illustrates the dangers we are escaping.

MUCK RAKE

The President, Mr. Roosevelt, has brought upon himself no small amount of criticism for his now famous "Muck Rake" address. It certainly was a most astonishing utterance, particularly at a time when, by means of the instrument which Mr. Roosevelt had himself recommended, — publicity — the so-called "man with the muck-rake", is getting results. There is "muck" a plenty and if no one comes along with a rake, the man with the shovel will not see it and shovel it out. As Congress closes, the "man with the muck-rake" can credit himself with having largely helped in securing, if indeed the credit

is not all his, the passage of three bills of vital importance: the railroad rate bill, the pure food bill, and the meat inspection bill. There is a good deal of "muck" to be disposed of by each one of these measures, and the "man with the muck-rake" has piled some of it into heaps so that it can be seen a long way off. The muck-rake may not be a decorative, but it certainly is a useful tool.

OUR SHARE

Probably we are classed by some of our—friends?—as of the "muck-rake" persuasion. Certainly we have, from time to time, raked over our own medical back-yard and disclosed some of the nastiness of the nostrum muck—some, but not all. If this be the case, and we are so classed, it is rather a distinction than a reproach; but none the less, the job is not a pleasant one. It is not a pleasant task to rake through the muck and find evidence of good men gone wrong through ignorance—or for a consideration. It is not pleasant to find manufacturers presenting a fair and would-be scientific face publicly to our profession, while at the same time, like swine, fattening on the filth and nastiness of the nostrum muck. Yet it is just these unpleasant things that "the man with the muck-rake" encounters—and just this same sort of dishonesty can be found by anyone who cares to look. Do you believe a publisher is honest, who sells advertising space to an out and out fraud? Do you believe a manufacturer of pharmaceuticals is honest with you, if he stoops to participate in the dirty profits derived from such things as "Force of Life" and "Viavi"? Is it pleasant to find people you have grown to like and to look upon as friends engaging in such "muckish" business?

MAILING LIST

It seems almost superfluous to say that our mailing list was destroyed by fire, for there is so little that was not. We have been at work for several weeks on the remaking of this list, but it is an exceedingly difficult task. If there is anything wrong with the address of your JOURNAL, please restrain your anger, remember our troubles, and notify us, without unnecessary heat, of what is wrong. If you learn that the Journal has resumed publication but do not get a copy, though you are entitled to it, please notify us—also without heat—of that fact. In general, remember that we are doing our best and help us all you can. And please, *please,* remember that our address is 2210 Jackson Street, San Francisco.

THE A. M. A. OFFICERS

The election of officers of the American Medical Association, which occurred at the afternoon session of the House of Delegates, Thursday, June 7th, resulted as follows: President, Joseph D. Bryant, New York; 1st vice-president, Herbert L. Burrell, Mass.; 2nd vice-president, Andrew C. Smith, Oregon; 3rd vice-president, D. S. Fairchild, Iowa; 4th vice-president, W. S. Foster, Penn.; secretary, Geo. H. Simmons, Ill.; treasurer, Frank Billings, Ill.; trustees (all re-elected), M. L. Harris, Ill., Wm. H. Welch, Md., and Miles F. Porter, Ind. Atlantic City was selected as the place for the next meeting, the time of the meeting to be determined by the trustees. At this meeting of the A. M. A., the committee on re-apportionment of the House of Delegates brought in its report, recommending that state associations be allowed one delegate for each six hundred members. California, with its present membership, is entitled to only three delegates.

SOME MORE IMPUDENCE

It was with much disgust, but with no great amount of surprise, that the JOURNAL learned of the latest move on the part of one of the richest and therefore most dangerous "contract" organizations on the Pacific Coast. The information reaches us directly, but not officially, and hence there *may* be some error, that the German Benevolent Society has decided to pay its attendant physicians and surgeons—nothing! Is not this truly "Benevolent?" Is it not carrying the "lodge practice" principle to a logical conclusion? Surely ten cents a visit cannot be regarded as even remotely adequate compensation for professional services—so why pay it? Why not follow the illustrious and "benevolent" example of the German Society, and merely extend the empty honor? Will not titles and honors keep you supplied with books and instruments and pay for your post-graduate work? Will not the butcher and the baker and the landlord be satisfied if you point out to them your positions and titles? Never mind if you are unable to keep up with medical progress, forget that you cannot properly clothe and feed and educate your family; just remember that you are helping to enrich the German "Benevolent" Society, or some other lodge or contract practice concern, and be happy in the thought that *you* are really the "benevolent" one. It sounds well to put it in such nice language; but what you really are—if you are doing this sort of work—is just plain, ordinary "fool."

THE NEW DIRECTORY.

It seems probable, at the time of writing, that the Register and Directory, for this year, will be out about the same time as this issue of the JOURNAL. A sufficient number of copies for each County Society, will be expressed to each secretary, and we most earnestly ask each and every County Society Secretary to help us by distributing these copies to the members. Many errors of omission and commission will be noted; it is surprising that there are not more, for the type was set in one town, the printing done in another, and the binding in a third. Furthermore, as the records of the Society have been totally destroyed, it was impossible to properly "check" the information. The Secretary could not in any way aid in the work and is in no way responsible for the result. He will cheerfully receive and note corrections and changes, but he refuses to accept any "kicks"—he has troubles enough as it is! Every person who receives a copy of the Register is requested to look through it care-

fully and to advise us of any additions or corrections—you must help if you want to see the Society records replaced. Don't forget the new address, 2210 Jackson Street, San Francisco, Calif.

(Note: After the foregoing had been put into type—to be exact, on the night of July 21st—the entire edition of the Register, which was being bound at Mountain View, was destroyed by fire. Presumably, we did not get enough in April, so a special dispensation of Providence gave us this additional warming. The work has been once more started, and unless it again burns up, the Register will be out in a short time.)

HOW TO SAY IT

When one suddenly discovers the strongest kind of friendship extended to him; when, in the hour of dire need and overwhelming trouble, succor follows swiftly on the heels of disaster and aid is proffered and extended without a thought of hesitation, how may one express his feelings of grateful appreciation? To say "thank you" seems so bald—so empty—so expressionless; one is confronted with the paucity of the English language. Scarcely had the news of our disaster of last April been noised abroad, before telegrams and letters began pouring in, transmitting money, authorizing drafts, notifying us that funds were being raised in all parts of the United States for the relief of San Francisco's stricken physicians. For every sympathetic heart beat, for every friendly and comforting word, for every dollar so generously contributed, the entire profession of the State, its State Society, its JOURNAL, its Secretary, extend to each and every friend their deepest appreciation and heartfelt gratitude. Gentlemen all, our words of thanks come haltingly from lips chocked by a too full heart, but the feeling, deeper than we can ever find words to express, is in our hearts and minds, and one and all, we thank you. We shall not again touch upon this subject, nor, if it can be avoided, upon the subject of our calamity. Many a strong man has been heard to say, "When I go through the burned district and think of the city as it was and as it is, and of those three days in April, and I realize the ghastliness of it all, I get sick at my stomach." To this complaint the editor must plead guilty. The only remedy lies in the forgetfulness that comes from work, and perhaps our present many troubles are really blessings, in that they keep us from the danger of remembering. Perhaps time may take from our eyes and our ears the sights and the noises of those three days of fire; so we hope and pray. But in the meantime, we would forget; so let us be thankful for the troubles that give us work to do.

PRESIDENT'S ADDRESS, THIRTY-SIXTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

By R. F. ROONY, M. D., Auburn.

Another year has been engrossed upon the roll of history since last we met, and we hope that the meeting we are now entering upon may prove to every one of you to be as rich in scientific worth as any that have preceded it in the history of this Society. The year that has just passed has given us nothing new or startling, either in medicine or surgery, but it has settled some vexed questions, and has shown a steady progress upward and onward. One of the greatest movements of the day in our own country, is the growth of our medical societies. Everywhere, from Maine to California, and from Washington to Florida, the medical men are awaking to the advantages to be derived from their medical associations. Our own State Society has grown within the past few years, into an august body that is a credit to the profession of California. It has reached out and covered almost the entire State, and is still growing. I am proud that I have borne even a small part in this great work. A quarter of a century ago, when I joined this Society, it had about 300 members, and was rent by contending factions. Now it is climbing rapidly toward the 2,000 mark, and still progressing. Even to be a humble stone that helped in the erection of this great edifice, is a lasting honor. But we count not alone the growth of this great Mother Society, but also the nursing into activity of the county units. Here is where the greatest good to the rank and file of the profession is accomplished. Here the local jealousies are smoothed away; man meets man, and personal contact erases the prejudices that cause enmity, and lays the foundation for respect and esteem.

It is fifty years ago since this Society was founded, and it is fitting that we should pause a moment and look back over the last half century, and recall the labors of our fathers. Let us contemplate the founding, the growth, the history, and the present condition of this Association.

On March 12th, 1856, seventy-six physicians gathered together at the City of Sacramento, and organized the Medical Society of the State of California. During the session four more names were added, and the Society started out with an active membership of eighty—a respectable number. Dr. B. F. Keene was chosen president, and served one year. A very interesting fact connected with this session, and one worthy of note, was that resolutions were introduced recommending the establishment of a medical journal, and that Dr. J. F. Morse undertook the task under certain provisions. He was to publish a quarterly journal of medicine and surgery under the conditions that two hundred subscribers be secured, at five dollars per annum. There are no records to show that the enterprise was ever started. In 1857 the meeting was again held in Sacramento, and Dr. Henry Gibbons was elected

President. In 1858 the annual session was held in San Francisco, and Dr. A. B. Stout became President. In 1859 the Society returned to Sacramento, and Dr. R. B. Ellis received the honor of the presidency.

Here comes an interregnum of eleven years, during which time the society fell to pieces. The reason for this was no doubt two-fold. Firstly, there was no law in any way regulating the practice of medicine in the State of California, and every man was governed by his own desires. If a man was a gentleman he acted accordingly; if he was not, he could be guilty of any indirection and there was no redress. Secondly, there occurred a dire disaster to our country at this time that shook the very foundations of the nation, and no wonder our society fell. I allude to the Civil War. To those of you who lived through that awful period comes the memory of inflamed passions and insane hatreds. Fathers took arms and went forth against their sons, and brother went out against brother. The warmest friends became alienated by the bitterest partisanship, and there was no peace in the land. In California, where partisan opinion was pretty evenly divided, the storm and stress of civil war absorbed all men's minds, and, as I said before, it was no wonder our society went down in the ruins.

On October 19th, 1870, in answer to a general call, a meeting was held in San Francisco, and the Society reorganized. As a result, the Society was incorporated on November 1, 1870, Dr. T. M. Logan, President. From this date onward, this Society has been in a fairly satisfactory state, and has been doing good work. In 1876 the registration law was passed, and caused considerable friction. The medical school question was always in evidence for twenty years, and the Society was practically divided into two rival camps. To quiet individuals like myself, who always worked for peace and harmony, it was a most trying time. The warring factions would cry "peace, peace," but there was no peace. Conditions, however, slowly but surely improved, and in 1900 the suggestion was broached that the Society be reorganized on a broader and more liberal basis. This matter came up again in 1901 at Sacramento, and a committee was appointed to prepare a constitution and by-laws for reorganization. At the same time the matter of abandoning the Annual Volume of Transactions, and substituting therefor a medical journal, was first suggested. The reorganization committee reported at the meeting in San Francisco in 1902, and their recommendations, with the constitution and by-laws presented, were adopted. Some needed changes were made the following year at Santa Barbara, and this Society entered upon a new era of peace and prosperity. In November of this same year our STATE JOURNAL entered upon its career of usefulness. In 1903 the annual publication of the Register and Directory was begun, which is so convenient and useful. In 1856 this society started out, as before noted, with a membership of 80. Today our ranks stand 1768 strong. Have we not reason to be proud? Let us emblazon "Onward" on our banner, and keep it ever at the front!

During the year just passed there has been a strong effort made to discredit these drugs in the best medical journals, and also in a few first-class secular publications. In the general interest taken in the subject, I hope I will be pardoned for occupying your time on this trite topic. I believe the battle against "patent" medicines must be mainly fought outside of our profession. The educated physician who would prescribe a "patent" nostrum for his patient, is lacking in good sense, so I take it for granted we can depend upon all within our ranks to discourage the use of secret remedies, and to explain their ill effects to their patients. In my opinion that is as far as we can go. We only court trouble by attacking the traffic publicly, as the great daily press is against us. Whole pages of the great journals are filled with the advertisements of quacks, wonder workers and nostrums, and self-interest ranges them against us and in favor of their patrons. Every physician who takes action against the ignorant quacks, or the advertised nostrums of the day will find himself overwhelmed by the sneering attacks of the press, and will be accused of fighting them through interested motives, or, in other words, because they cut into his income. This is thrice irritating, because the physician is working continuously to deprive himself of occupation and revenue, by trying to overcome disease by prevention, instead of earning increased revenue by treating it.

But the proprietary medicine nuisance is different. We have a quiet remedy in our own hands if we will use it. It simply lies in a better education in our colleges. In all these institutions of the present day, the subject of materia medica is neglected. What matters it if the student be fully instructed in all subjects concerning disease, provided he be not trained to the use of the arms needed to combat the same? Let me illustrate. Some eighteen months ago I served on one occasion with the State Board of Examiners. My subject was materia medica. There was a class of 34, and of this number 28 were being examined in regular medicine. One of the questions was, "What are the four official alkaloids of Cinchona bark?" "What are the official salts of quinine?" Not one single applicant answered either clause of the question correctly, nor even earned 50 per cent credits on them. Next followed the question: "Give the official preparations of Digitalis, with dosage?"—a simple question that a first year's student should answer, yet two-thirds of the applicants fell down on it most lamentably.

I quote one more: "Give the official preparations and dosage of Rhubarb? What is Scammony and what is its active principle?" Not one gave a complete answer to the first clause of the question, and as to the latter no one seemed to know anything about it. Nay, I beg his pardon, one party did, as his answer will show. I quote *verbatim*: "The active principle of Scammory is that part of the drug which makes it useful in medicine." How is that? That party must have been thoroughly educated to enable him to answer so intelligently. But was it his fault? No, it was the fault of his method of education. Here was over half of these

young students, just out from under the wing of their alma mater, who knew almost nothing about these three common drugs. What will those men do when they go out into the world to practice their profession? They are so ignorant of drugs, and what they will, and will not do, that they listen open-mouthed when the glib-tongued agent of a proprietary medicine comes along and vaunts its worth. The young practitioner is told that the drug is almost infallible in a certain class of ailments, and that it is sold only through the profession. So he commences to use it, and, *facilis decensus averni.* He rapidly slides downward from one abomination to another, until he has become a victim of the proprietary medicine habit.

Now, you ask, what is your remedy? First, let our medical colleges give better courses in materia medica. Teach the student the nature of, and how to handle, the weapons he must use when he enters the list against Death. Next, let every professor warn his students, time and again, never to use anything but approved and standard medicines. If this be done, the young graduate will go out into the world with a wider knowledge, and a better *armamentarium.*

Two years ago, when this Society met in Paso Robles, I presented a plea for State laboratories. Their necessity still exists, and I think it the province of this body to urge their establishment, and to awaken the people to the need of such institutions. Our State Board of Health has secured privileges for the examination of cultures, which is of great assistance to the profession in the country. But these do not go far enough. We need two fully equipped laboratories, one at Los Angeles and the other at Sacramento. Owing to climatic conditions which cannot be overcome, our water supply throughout the State becomes poor in the latter part of the dry season. It needs the closest watching to prevent its, somewhere, becoming inimical to man. The germs found in it are mostly harmless saprophytes, but at this stage, the introduction of a colony of Bacillus Typhosus into this already poor water, means a calamity to the community using it, unless the invading foe be promptly detected. It is a costly thing to have a bacteriological examination of water made, and yet the health of whole communities often depends upon it. A few colonies of Bacillus Typhosus may not mean much at the outset in a great water supply, but if they be detected early, widespread epidemics may be prevented. But there is no use enlarging upon the necessity of these institutions. I am sure that, with myself, you are all in favor of them. It only resolves itself into the question, "What are you to do?" I leave the question with this Society.

I lay it down as an axiom, "When you have secured medical legislation, enforce it," otherwise your laws fall into contempt. A law disregarded is worse than no law. Time, effort and money have been expended in California to procure a just and equitable medical law. We have it, but outside of the beneficial efforts achieved by our State Board of Examiners, it gives little satisfaction. The reason of this is that a law will not enforce itself, and there has been no one whose duty it is to see it enforced. Some spasmodic efforts have been made, here and there, to carry out the law, some of which have been successful, and many unsuccessful. Our present medical legislation was procured for the good of the public, as wel las for our own protection, but you cannot make the public understand that. They look upon it as class legislation, and have no sympathy with it. Hence there is a hesitancy on the part of the public and its officers—constables, prosecuting attorneys, and even judges—to properly prosecute and deal with cases brought before them under this act. They "can't see anything in it" for them. There are no votes to be made by it. Theoretically our law officers are expected to enforce all laws. Practically they never have done so, and never will. This fact we may as well face. Our prosecuting officers are the creatures of the public; elected by the public, and dependent on it for re-election. They are as sensitive to every breeze of public opinion, as the thermometer is to varying temperature. Let an honest prosecutor undertake to enforce the law, and the whole daily press is aroused in an instant, especially if it be the case of an advertising quack who is being justly prosecuted. The immense advertising patronage bestowed on the press by the quacks, charletans and vile creatures of that ilk, indirectly bribes the press into their support of these people. Under the volume of obloquy, abuse and sneers bestowed upon him, he is a strong man who will persist in a vigorous prosecution. Now, then, what shall we do? As societies, State, District and County, we do not seem able to cope with the evil. Some county societies make spasmodic efforts to carry out the law, (and usually with more success in the county than in the city), but they soon get weary in well doing. This parent society seems helpless, and the law lies in contempt.

What is the remedy for this? Surely there must be a remedy after a disease has been thoroughly examined and diagnosed. Well, it is not a new one, like many of our best in medicine, as it has been advocated before. It is a *paid attorney* to be kept in the service of this society to obey calls. Then we could cover, practically, the whole State with a systematic organization of State and County Societies. I submit this for your careful consideration, and believe that for the object in view our members would cheerfully pay higher dues to meet the expense, if needed. A paid attorney would be outside of political and other adverse interests, and would procure convictions where failure attends us under present conditions.

An important movement recently entered upon by the American Medical Association is that of attempting to standardize and elevate medical education. It is well worthy of our support, and I call your most serious attention to the matter. The American Medical Association has adopted the following standard requirements as requisite to the practice of medicine:

"1. Preliminary requirements are to be a high school education or its equivalent, such as would admit the student to one of our recognized universities.

2. Preliminary requirements to be passed upon by a state official, such as the superintendent of public instruction, and not by an official of the medical college.

3. A medical training in a medical college, having four years of not less than thirty weeks each year, of 30 hours per week of actual work.

4. Graduation from an approved medical college required to entitle the candidate to an examination before a state examining board.

5. The passing of a satisfactory examination before a state examining board."

I would therefore recommend that in order to carry out the foregoing, you alter the by-laws of this society to enable it to appoint a committee on the advancement of medical education, to co-operate with that of the national society. Any power we now have is vested in our commitee on public policy and legislation, and the scope of this committee does not properly cover this work. The duties of this committee could be inserted in our by-laws and have been advised by the Council on Medical Education of the A. M. A as follows:

"The committee on Medical Education shall consist of three members; one member shall be elected to serve for one, one for two, and one for three years, thereafter one member shall be elected each year to serve for three years.

"The functions of the committee shall be (1) to co-operate with the state examining board in matters pertaining to medical education; (2) to make an annual report to the House of Delegates on the existing condition of medical education in the state; (3) to co-operate with the Council of Education of the American Medical Association in the United States."

The time is ripe for energetic work in this direction, and I take pleasure in directing your attention to it, knowing that you will weigh the question with your usual care and attention.

In conclusion, let me thank you for the honor you conferred upon me one year ago, by electing me President of this Society. Your doing so makes it my duty to preside at this meeting, over this august body of scientific men and women. I hope I may preside with satisfaction to you, and credit to myself. In order that the great body of work presented at this meeting may be disposed of within the allotted time, promptness is necessary on the part of all. Promptness in attendance at the allotted hour; promptness on the part of those having papers to read; promptness on the part of debaters, both in commencing quickly and closing when their time expires. If these things be borne in mind, and acted upon, it will save the President much embarrassment in being obliged to use the gavel. And I beg of you, ladies and gentlemen, to give us a good attendance. On arriving in San Francisco, the country members are surrounded by the seductions of a great city, whilst the San Francisco members are led astray by the seductions of attending to their own practice. Hence the attendance on meetings held in this city is always less than it should be. Try and do better by us this year, and fill our hall with an attentive audience. It is poor encouragement to our working members when their papers, on which have been expended both time and thought, have to be read to empty seats. Don't give good work a black eye in that way, but attend as well as you did one year ago, in Riverside, and everyone will be pleased.

REPORT OF THE COUNCIL.

The Council has held four meetings and has taken three mail ballots on questions of minor importance submitted to it. Early in the present year it suffered a loss of one of its distinguished members in the person of Dr. Thomas Ross, who had been a member of the Council since its commencement on the reorganization of the Society, in April, 1902. As Dr. Ross's death occurred so shortly before the meeting of the State Society, the vacancy thus caused has not been filled.

As authorized by the House of Delegates at the last meeting, the practice of having the books and accounts audited by the Auditing Committee, has been abandoned. The Auditing Committee carefully audits all disbursements before they are made, and an expert accountant examines the books and accounts as closed on December 31st. As his examination and report covered the period from May to December, during which time no assessment money had been received, the excess of liabilities over assets is apparently much higher than is actually the case. A statement of the affairs of the Society on the first day of April will be presented by the Secretary, and this statement will also include the matter of the cost of the various publications to the Society.

The expert recommended that the JOURNAL be changed from a monthly to a semi-monthly as soon as possible, and also that the number of reading pages be reduced in order that more profit might be derived from the advertising pages. The Council believes that it will be possible to establish a semi-monthly publication in 1907. On the second recommendation, however, the views of the Council are not in accord with those of the expert, and at a meeting held on March 3rd, the following resolution was unanimously carried:

"On motion, it was decided as the sense of the Council that the effort to make the JOURNAL of the Society the best scientific State Journal published, be continued, and be not sacrificed to commercial or advertising considerations." In this determination we sincerely trust that the House of Delegates will concur.

The statement of membership, as shown by the Secretary, indicates a moderate but satisfactory growth. Three new societies have been organized during the year and several which were in a precarious condition have been reorganized. Others have changed from nominal organizations to active

organizations and have taken up the suggestion of systematic work.

Dr. J. N. McCormack, chairman of the Organization Committee of the American Medical Association, visited our state and addressed the County Societies in a number of counties. The beneficial result of Dr. McCormack's addresses to our members and of his suggestions in regard to greater activity in County Societies, have already borne fruit as evidenced by the activity displayed in a number of counties throughout the state.

At the meeting of the Council held April 20, 1905, it was moved and unanimously carried that in the opinion of the Council, contract or lodge practice is unethical and that the House of Delegates at the Thirty-sixth Annual Meeting be requested to take similar action.

The question of lodge practice was referred to the Council by the House of Delegates at the last meeting for the purpose of investigation and to discover the attitude of the various County Societies. This is undoubtedly one of the most serious evils confronting our profession at the present time and should receive careful attention at the hands of the House of Delegates. The Council believes, however, that any action of this body making mandatory upon County Societies any course of procedure which would forcibly effect membership would be unconstitutional for the reason that the whole plan of the present organization of the medical profession is based on the absolute autonomy of the County Society.

The following counties have indicated their disapproval of lodge, contract and similar practice: Monterey, San Joaquin, Yolo, Riverside, Ventura, Santa Clara, Sacramento.

The following Societies have notified the Secretary that no person is eligible for membership who indulges in this class of practice: Sonoma, Shasta, Marin, Orange, San Diego, Napa, San Benito and Contra Costa. Los Angeles County took a referendum ballot on this question, but through some ambiguity the result was not a clear indication of the wishes of the majority. It is believed that other county organizations have taken action in the matter, notice of which has not reached us.

The Supreme Court has decided that that portion of our medical law which authorized the board to revoke a license to practice for advertising grossly improbable statements is unconstitutional. It would therefore seem desirable to consider the necessity of amending our law to counteract this difficulty.

In the opinion handed down by the Supreme Court and referring to the matter of grossly improbable statements, the decision says:

"Under this provision the penalty of forfeiture of a physician's license is not made to depend upon falsity in fact of any matter contained in a statement or knowledge on the part of the physician that it is false, or for the reason that it was intended or had a tendency to deceive the public or impose upon credulous or ignorant persons and so be harmful or injurious to public morals or safety."

This would seem to indicate the manner in which the law should be amended to cover the point in question.

It is probable that a bill will be introduced into the next legislature requiring the formula to be printed on the label of all patent medicines or nostrums. Such a bill has been introduced in many States and has received the active and violent opposition of the druggists. It is possible that the druggists of our state, through their Association of Retail Druggists, may endeavor to do again as they did at the last session of the legislature and introduce a bill emasculating our present law regulating the practice of medicine as a retaliatory measure.

The Council would therefore suggest that each County Society arrange for meetings with the druggists within its territory and endeavor to come to an amicable understanding in regard to this matter.

The Council is not making the finances a paramount issue—though we are pleased to offer you so good an exhibit—but rather the advancement of the profession along the lines of a better organization and a higher appreciation of the splendid results which will follow an era of improved professional sentiment between physicians. We are as yet unorganized so far as the unification of interests are concerned.

There is no class of men that stand so little together, as our profession. McCormack says: "We exhaust our energies knocking the other fellow, instead of presenting a solid front of mutual interest and co-operation." The enrollment of members of our profession in societies is but a step in organization—we want to get them together in the spirit of fraternity and fellowship. The Council will work to that end. We ask your assistance to bring it about.

The exhibit we are enabled to present you to-day which embraces our financial situation in connection with the high standing our JOURNAL has attained, reflects great credit upon Dr. Philip Mills Jones, the Editor of the JOURNAL and Secretary of this Body.

Your Council is well aware that he is being inadequately compensated for the service he is rendering this Society, and it is our desire that his salary be brought somewhat nearer to a fair compensation for services performed, at the earliest date possible. C. G. KENYON, Chairman.

ANNUAL REPORT OF THE SECRETARY AND CHAIRMAN OF THE PUBLICATION COMMITTEE.

To the President and Members of the House of Delegates of the Medical Society of the State of California:

Gentlemen: As the various offices of Secretary, Chairman of the Publication Committee and Editor of the Society's publications are combined in the person of the same individual, the reports from these three offices will be combined in this one report. So far as possible the various topics of interest to your honorable body will be segregated;

much of the work of the general office, however, is of an indeterminate character.

The difficulty of segregating the various work performed and the expenses attendant thereon, will be obvious upon a little reflection. For instance, much of the charge to JOURNAL account might just as equably be charged to organization account, for the JOURNAL has been used from its beginning as an instrument for prosecuting organization.

The present condition of our organization is in many ways very satisfactory. There were on the 1st of April, 1777 members, a net increase of 128 over those reported last year. Three new County Societies have been organized—Solano, Tehama and Tulare, though the latter has not yet completed organization and may, owing to the almost complete inertia of the medical profession in that county, fail of final organization. It is to be noted that eighteen counties have increased their membership and that nine have lost in membership. It appears from the statement of membership which has been handed to you, that the larger counties are gaining and the smaller counties losing. In some instances this is more apparent than real, for the loss has been due to removals or deaths. Santa Clara is the banner county, having nearly doubled.

The principal difficulties in organizing county societies or in maintaining their active organization are found in factional strife in many instances, largely due to the lodge practice evil; and absolute inertia—total lack of interest on the part of the physicians in the welfare of the profession and the general public.

The visit of Dr. McCormack to our state and the gospel of friendship and co-operation in work which he preached, should result very beneficially to our organization. It seems very doubtful to your Secretary that coersive measures will avail in solving the lodge practice evil. Closer organization with more active and systematic work in the County Societies, offers a very much better chance of solving this and other economic problems which confront our profession.

At the last meeting of the State Society the question of lodge practice was referred to the Council for investigation. A sufficient number of the County Societies have not acted upon this matter to enable an official statement to be made as to the general feeling throughout the state. A personal canvass made by your Secretary, however, assures him that the profession is overwhelmingly opposed to this class of practice, and he is personally aware of the fact that many County Societies are awaiting the action of the State Society before taking this matter up.

During the year we have had the misfortune to lose two past Presidents by death: Drs. Geo. Chismore and Thos. Ross, the latter being the Councilor from his district.

Agreeably to the request of your Secretary and your Council, your honorable body last year authorized the auditing of all books and accounts of the Society at the end of the year, thus relieving the Auditing Committee of the Council of the responsibility of this work, and also assuring to your Secretary the protection of an official inspection of his accounts. An expert went over the books after they were closed on December 31st, and carefully audited every item of income and expense from May 1st to December 31st. His report was transmitted to the Chairman of the Council. As the period covered in his report represented eight months of the year 1905, during which time no money was received from the assessments from County Societies, the excess of liabilities over assets was unreally great. As you will see from the statement showing the condition of affairs of this Society on April 1st, our finances are in excellent condition, considering the betterments made during the year.

In the opinion of your Secretary, the organization work should be unremittingly continued and should be prosecuted along the line suggested by Dr. McCormack; that is, recommending and stimulating an effort to secure more frequent meetings and more systematic educational work.

All County Societies should confer with the druggists in their territory and endeavor to secure their co-operation in an effort to have enacted by the next legislature a law requiring the publication of the formula of all "patent" medicines on the label of each bottle or package.

County Societies should make an effort to educate the laity in their various districts by making use of the local press. There is hardly a paper published in the state that would not be glad to receive articles referring to the public health or public welfare if carefully prepared by the County Society and sent in for publication as official statements from the local profession.

It is quite probable that history will repeat itself and that the next session of the State Legislature will see efforts made to emasculate our medical practice act and to secure the passage of laws creating special boards of examiners which would license all forms of quackery. It should be considered the duty of every County Society to have a distinct understanding with the representatives from its section to our legislature on these points.

The Supreme Court of this state has declared that the paragraph of our law authorizing the board to revoke a license for advertising grossly improbable statements, is unconstitutional. It would therefore seem imperative that this portion of our law should be amended by the next legislature. It would also seem well to consider the advisability of endeavoring to modify our law in a few other directions.

It has been suggested that we endeavor to secure the passage of a clause which would permit only graduates of medical schools in the United States to become licensed in California. As is probably well known to all of you, United States medical schools are not recognized in Canada or Europe, and this action might possibly be regarded as a proper retaliatory measure.

The practice of medicine, as defined in our

present law, is unsatisfactory and should be amended.

The A. M. A. has undertaken an enormously valuable work in the establishment of its Council on Pharmacy and Chemistry, and this action should be endorsed by our Society. It also occurs to your Secretary that we should extend an acknowledgment of our appreciation to *Collier's Weekly*, *The Ladies' Home Journal* and some of our California papers for their excellent work in fighting the great American fraud, the nostrum evil.

Care should be exercised by the House of Delegates in electing delegates to the A. M. A. who will attend to the duties placed upon them by virtue of such office. At only one session of the Portland meeting of the Association was California represented in the House of Delegates by more than two delegates.

A request has come from the A. M. A. for us to establish a Council on Education of this State Society to co-operate with the Council on Medical Education of the A. M. A.

The question of fees for insurance examinations has been agitated in many counties of our state and the demand is overwhelming that a minimum fee of $5 should be paid. Your Secretary has been requested to present this matter to your honorable body for your consideration.

A suggestion has been received with the request that it be presented to this House of Delegates, that some action be taken to secure better advantages for medical men who desire to make use of our state library, located in Sacramento. The medical section of this library has received little attention at the hands of the librarian (your Secretary is informed), and might be made very much more valuable and useful. It has been suggested that a special committee of this Society be appointed to confer with the library authorities at Sacramento and endeavor to increase the usefulness of this portion of the State Library.

PUBLICATIONS.

The Register account from May to April has cost the Society $2015.80. During the same period we have received $1925.37. The loss is therefore $90.43. In all probability the publication of the Register will continue to be at a loss, though at the present time the editor has under consideration a plan for securing subscriptions to the Register and the JOURNAL combined, which may increase the circulation and sale of the Register and eliminate the element of loss.

JOURNAL.

In 1904 the income from the JOURNAL advertising was $4017.28; in 1905 it was $5907.04, an increase of $1889.76. For the first three months of 1906 the receipts have been $1602.41, showing an increase for the year 1906 of approximately $1000. The JOURNAL is now being published at an excess of receipts over expenses of approximately $1200, and this in spite of the fact that it has been increased in size to eighty pages. The cost has been reduced so that the profit for the first three months of this year is $326.31, as against $86.45 last year.

The expert who investigated the affairs of the Society recommended that the number of reading pages be not increased to correspond with the number of advertising pages, so that the profit to be derived might be increased. This recommendation was presented to your Council, but the Council considered that the scientific value of the JOURNAL should receive consideration first, and that its earning capacity from the advertising standpoint should be a matter of secondary consideration, so long as its receipts exceed its cost.

The showing is somewhat deceptive, for many of our new contracts, calling for quarterly payments, do not mature until April or May.

PHILIP MILLS JONES, Secretary.

A REVIEW OF WHAT HAS BEEN DONE FOR THE PREVENTION OF THE SPREAD OF TUBERCULOSIS IN THE STATE OF CALIFORNIA, WITH SUGGESTIONS FOR FUTURE ACTIVITY.

*Third Annual Report of the Tuberculosis Committee of the Medical Society of the State of California.**

When the Tuberculosis Committee of the State Society was appointed three years ago, very little active work looking toward the prevention of tuberculosis was in progress. Efforts had been made now and then, but they were often ill-advised and impractical. The main idea of prevention that had been crystalized into definite shape was that of state quarantine. This measure had actually received consideration from thinking men and was advocated by them. Aside from the fact that such a measure is impractical, unconstitutional, and inhumane, it is unscientific and entirely unnecessary.

It being undesirable and entirely out of the question to quarantine the state against the incoming of individuals suffering from tuberculosis, and as tuberculosis is a communicable disease, dangerous to the public health, unless properly controlled, it behooves the citizens of this great State of California to address themselves to the prevention of this disease.

During the past three years, very satisfactory progress has been made. When this committee was appointed, there was only one other organization in the state which was endeavoring to prevent the spread of the "great white plague" in a scientific and humane manner. That was the Southern California Anti-Tuberculosis League, whose work at that time had just begun.

Up to the present time, the Southern California Anti-Tuberculosis League has done more active work in prevention than any other organization. It has distributed thousands of circulars throughout the homes in the southern part of the state. It has held several public meetings to which the laity have been invited, and it has furnished lecturers to numerous organizations requesting the same. On May

*Presented at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

28th, of this year, the league established a dispensary in Los Angeles to be known as the Helping Station of the Southern California Anti-Tuberculosis League. This is to be more than a dispensary in the ordinary sense in which this term is understood. It is to be a place where the afflicted may be treated and instructed, where the needy may be given food, and where all may receive that help which will best further their improvement or cure, and where, at the same time, they will be instructed how to prevent the spread of the disease. When tuberculosis is found in a family, the other members of the family will be sent for and examined, that all foci of infection may be known, and that the best chances of cure may be offered where the disease is already present. A visiting nurse will be associated with the station, who will visit the homes and further instruct the patients and their friends in the carrying out of preventive measures.

The Tuberculosis Committee of the State Society has also done some work which we hope will bear fruit. It made a collective investigation of data pertaining to the disease in our state, and made an effort to secure the establishment of a state sanitorium at the meeting of the last legislature. While this much needed legislation failed for the time, yet the forces are again being marshalled and the matter will again be taken up at the next session of the legislature.

The committee, through one of its members, has recently succeeded in organizing the work in San Francisco, and hopes to have hearty support from the people, that it may be the means of doing great good in checking the spread of this preventable disease. A dispensary and tent colony are in contemplation for San Francisco. The committee has recently completed a report dealing with the main features of the disease, which is to be used as an educational document throughout the state.

Pasadena has recently organized a Tuberculosis Committee under the auspices of the Associated Charities. A helping station similar to the one outlined for Los Angeles will be established, and a tent colony will also be maintained.

Aside from this, private institutions have done much. The Barlow Sanatorium in Los Angeles, and the Settlement at Redlands have done a great good for those who have been fortunate enough to obtain help in these institutions.

Several private institutions have also been established where pay patients may be treated. This is surely a satisfactory progress for three years. The work is starting everywhere along the line. There remains much, however, that is still undone.

The matter of education must be pushed. Leaflets, lectures and the press must be utilized to greater advantage. The laymen must be taught that this disease is communicable, almost wholly preventable, and, if diagnosed early, curable. They must be made to appreciate the importance of early diagnosis and seeking expert medical advice at the first approach of the disease. The medical men must also learn what early diagnosis means both for the chances of cure for the afflicted, and the prevention of the spread of infection. Medical men must deal honestly with their patients, if they will afford them the chance of recovery and if they will prevent the spread of the disease. Withholding from the patient the facts relative to the presence of tuberculosis, in the light of our present knowledge of the disease, is not only inexcusable, but criminal, and responsible for hundreds of deaths and hundreds of new infections in our state every year.

We would earnestly urge upon the medical profession the importance of early diagnosis and that which should accompany it, informing and instructing the patient.

We would also urge upon the part of the medical profession the importance of health board control of the disease, not for the purpose of quarantine or placarding the houses occupied by tuberculous patients, but that every focus of the disease may be known to the health board, so that the patient may be instructed and the premises cleansed and disinfected after removal or death of the patient. While the disease is almost wholly preventable, yet it cannot be prevented unless physicians assist the health authorities in its prevention.

Perhaps the most important institution for the prevention of the spread of tuberculosis is the dispensary, or helping station. The superior value of this institution depends upon the fact that it is visited by those who live under the most unhygienic conditions, and consequently are most prone to spread the disease. While the dispensary or helping station is not a satisfactory place to treat tuberculosis, its value for prevention cannot be overestimated, for its patrons are not only instructed, but they are followed up in their homes to see that they carry out the instructions.

A dispensary, however, is very much hampered, unless the proper hospital and sanitorium facilities are furnished for the completion of the work. Suppose tuberculosis is discovered during its early state in members of these poor families, there can be little hope of cure offered unless these patients are relieved from making a living and from family cares, and unless they can be given proper food and care, such as can be afforded in a sanitorium. True, they can be instructed how to prevent the spread of the disease outside of a sanitorium, but if they could be cured, their families would have their support and they would no longer be capable of spreading the disease. When advanced cases are found in densely crowded quarters, where they are endangering the lives of those associated with them, in order to remove the danger of infecting others, they should be removed to suitable hospitals.

So, in order to utilize our forces best for the prevention of the spread of tuberculosis in the State of California, we would urge,

1. Education,
2. Early diagnosis with informing and instruction of the patient,
3. Health Board control and disinfection of rooms occupied by tuberculosis individuals,
4. Dispensaries or Helping Stations,
5. Sanatoria for early cases,

6. Hospitals for advanced cases.

We would request that the members of our Society give their support to all such measures to the end that we may reduce the suffering and deaths caused by this preventable and curable disease, and we would especially urge their earnest support of the bill which will be introduced in the next legislature, providing for the establishment of a State Sanatorium.

FRANCIS M. POTTENGER,
GEORGE L. COLE,
GEORGE H. EVANS,
JNO. C. KING,
EDWARD VON ADELUNG.

DISCUSSION.

Dr. Jno. C. King said: The report of your committee on tuberculosis is devoted to "The Administrative Control of Tuberculosis." In large cities and in smaller municipalities this problem of "control" must be solved by and through the administration, which includes mayors, town councils, police justices and officers, health boards and officers, etc. In unincorporated towns and rural communities no administration exists. In such places people are governed exclusively by state law and by such regulations as county boards of supervisors may enact. These laws and regulations, so far as they relate to sanitation, are absent or altogether perfunctory. Even when they exist no provision is made, nor can be made, for their enforcement, except through the local constable, who will never voluntarily assume the burden.

Now, in Southern California, at least, these rural communities are the very ones that need administrative control. Many of them have established reputations as health resorts for tubercular patients, and their population consists largely of consumptives and their families. The force of public opinion is the only power that will compel the enforcement of law anywhere in this country, and this is especially true in localities where no adminstrative machinery exists. The point I wish to make is that physicians, and they alone, can create and cultivate the public opinion that will result in the sanitary regulation of tuberculosis.

With your permission, I will use the town of Banning, where I live, as an illustration. Banning is not incorporated and has a population of about 1000. For the purpose of this paper I have investigated each house and each family. Actual consumptives constitute about 12 per cent of the population. Fifty-three per cent of the resident families come to Banning on account of tuberculosis in some member of the family. Thirty-one per cent of the dwelling houses are, or have been, hotels and boarding houses where tubercular patients are received. Seventy-two per cent of the dwellings have housed such patients. From such statistics one would expect tuberculosis to be prevalent among the resident population, especially as so many of them possess inherited tubercular tendencies. As a matter of fact, aside from strictly imported cases, not one single case of tuberculosis has occurred in Banning during the past ten years. The disease is absolutely unknown among our resident population. Three physicians reside in Banning, and to the educational work done by them may be largely attributed our present immunity from infection.

The five minutes at my disposal prohibits a detailed description of the sanitary measures prevalent in our town. The Tudor House, under my supervision, serves as an example and object lesson. It is devoted exclusively to consumptives. When a room is vacated it is sealed and fumigated with formaldehyde for twenty-four hours; then all woodwork, including floor, is painted and the walls calcimined. Any patient who expectorates on the premises, outside of his own spit-cup, is discharged, regardless of wealth or social position. I have not time to allude to the various sanitary measures in daily use in this house, which accommodates twelve patients, nor do they come within the scope of this paper. The point is the example. As a result, all the hotels and larger boarding-houses possess apparatus for generating formaldehyde; and the demand for fumigation of rented cottages and rooms has become such that one competent man has included fumigation in his business. The Woman's Club and the Business Men's Club have materially assisted in fostering the sanitary idea. A large percentage of our people sleep out doors, summer and winter; many having built screened rooms or porches for the purpose. Of course, excess of sunlight and other climatic advantages have rendered our fight against infection a comparatively easy one. Nevertheless, without administrative facilities, through mere force of public opinion, judiciously guided, we have protected ourselves against the disease, and what we have done can be accomplished anywhere. There is not in Banning to-day, nor has there been for ten years past, a single case of tuberculosis that has not been imported into it.

DRUGGISTS AND NOSTRUMS

"So long as doctors are 'easy,' and so long as there is money in selling nostrums, druggists seem to think that it is all right for them to conduct a 'scientific' prescription department in the rear of the store for the doctors, and a 'commercial' 'patent-medicine' bazaar out in front for the physicians' patrons. But doctors are not as 'easy' now as they have been. Some of them never have been heartily in favor of sending their patients to the nostrum bazaars for their medicines, and so have quietly taken to dispensing; and others of them are now taking an active part in the crusade against fraud and deceit of a medical nature, and are passing resolutions at their county, state and national meetings, calling upon druggists to withdraw their active support of the medicine fakers. The lines are tightening, and the druggists will soon have to choose whom they will serve—the medical profession or the medical frauds. The day is coming when they can not serve both, and the indications are that the druggists' minds are made up as to whether they will keep the respectable crowd or go over to the anything-for-the-money gang."—Druggists' Circular.

ABDOMINAL EXPLORATION.*

By C. M. COOPER, M. B., San Francisco.

In considering this subject the question arises, should one use the old term—an exploratory laparotomy—or the expression so consistently God-fathered by Dr. Huntington—a diagnostic incision.

I would respectfully suggest that there is room in our nomenclature for both these phrases; that the term "a diagnostic incision" might be well reserved for that procedure which involves cutting down upon an organ definitely known to be diseased, or upon a tumor palpably present in order to determine the nature of the lesion, or the removability of the tumor. Such an operation is comparatively simple and necessitates no great disturbance of the neighboring organs and no extensive search through the peritoneal cavity. The phrase, "an exploratory laparotomy" may well be used to indicate that procedure which involves an investigation of many organs, or may be an extensive peritoneal exploration, as for example the search for the seat of an internal obstruction, or the endeavor to locate the more uncommon foci of origin of acute purulent peritonitis, or in chronic cases the search for the primal factor causing the "stirring events" so picturesquely described by Dr. Herbert Moffiitt at the late State Medical Society, as occurring in the right hypochondriac region.

I further take it that when once the diagnostic puzzle is solved, any further operative step takes that operation outside the category of "diagnostic incision" or "exploratory laparotomy," and enrolls it amongst the list of complete or incomplete operations.

As sane, sober, practical, common-sense individuals, we, I think, must concede that these diagnostic measures are of a grave nature, for associated with such there is a mortality dependent.

1st. Upon the anesthetic, during its administration and from its after effects.

2d. Upon peritoneal sepsis which may occasionally occur in the best regulated of clinics, however thorough the technic.

Such mortality in these diagnostic operations has been estimated at from one to two per cent in some large hospitals; how much more it is in large cities in private practice where every newly fledged graduate is opening abdomens, I would hesitate to say. Such mortality would utterly condemn these procedures were it not that they often form the initial stages of actually curative operations, and that the lives thus saved more than counterbalance the quoted mortality.

In regard to the question of postoperative adhesions, their function-disturbing role has, I believe, been much exaggerated, for it is the adhesions which are the external expression of the internal sepsis that cause trouble, and these chiefly by reason of the internal lesion which they barricade, rather than the adhesions resulting from clean operative work.

There is, however, another accusation which is somewhat widely made against those enthusiasts who in and out of season advocate these diagnostic measures, viz., that they use them in lieu of careful, systematic preliminary investigation and to cloak incomplete and inaccurate diagnostic methods and shuffling habits of reasoning. Any clinician who has seen patients upon whom such operations have been or are about to be performed, and yet discovers a metastatic growth, a leukemic condition of the blood, or maybe an unrecognized renal calculis, is naturally led to give his adherence to this accusation.

Moreover, there is another side of the question, viz., that these procedures are not the diagnostic panaceas which some surgeons would have us believe; for, first, in respect to the diagnostic incision, does not literature fairly teem with the records of lesions supposed at the time of operation to have been malignant, the after history of which proved their simple character? And the opposite must often have occurred. However, these facts cannot be used as an argument against the necessity for such methods of investigation, since the real questions: "Is the mass removable? If not, what is the best palliative operation to perform?" are often answered independently of the nature of the mass.

It is another question, however, in chronic cases as regards the exploratory laparotomy, and this must be so when we consider:

1. That the anatomical position of an organ is no true index as to its physiological function, e. g., a stomach may hang vertical in the abdominal cavity with the pylorus almost at the pubis, and yet its chemical and mechanical functions be performed in a perfectly physiological manner.

2. Though the outside of an organ be normal, that is no proof that the inside is free from disease, e. g., Dr. Jellinek and I have a series of gall-bladder cases in which at operation normal-sized gall-bladders with normal appearing surfaces, capable of being emptied by light pressure, showed on their being opened in obedience to clinical reasoning, the presence of muco-pus or discolored bile containing virulent organisms or gall-stones. The same line of reasoning naturally applies to almost any intra-abdominal viscus, and hence we can readily see that much more can often be learned from a preliminary systematic *correlated* study of physiological function and anatomical position, than by opening the abdomen and gazing at the outside of its contents during a period of function paralysis anesthetically induced.

We all, I presume, have formulated certain classes of cases in which we believe these diagnostic operations to be in order.

1. As such I would name all cases of abdominal tumors of doubtful character, to determine their nature and the question of their removability.

2. All cases of stomach trouble in which there is an absence of free hydrochloric acid, presence of lactic acid and Boas-oppler bacilli, even though no tumor be palpable, in order to determine the question of the removability of the tumor probably present.

3. All cases of stomach trouble with continu-

*A Discussion before the California Academy of Medicine.

ous delay in the emptying, to determine the cause and treatment.

4. Many cases of dyspepsia not included in the above lists occurring in persons at or about middle life which do not yield within a month to well directed medical treatment, more especially if a secondary anemia or wasting occurs, or if occult blood be continuously present in the stools.

5. Some cases of apparent chronic bowel obstruction with symptoms and signs suggesting a constant fixed delay point, even though no tumor be palpable.

All of the above necessitate a "diagnostic incision."

The role of the "exploratory laparotomy" in chronic cases is, in my opinion, much smaller. I would almost restrict it to some instances of upper right hypochrondriac trouble, we recognizing that the exploration will frequently require opening the gall-bladder. In acute cases it is often the first stage of a curative operation.

The mere presence of abdominal pain, of stomach or bowel hemorrhage are in themselves no determining indication for operative diagnosis.

In conclusion, I would say that I believe we should hold, as articles of medical faith both in our practice and in our teaching:

Firstly, that every other method of diagnosis, clinical, chemical, microscopic and radiographic, should be employed before these operations with their one to two per cent mortality be advocated, these investigations being conducted with dispatch so as not to ill-advisedly delay what may turn out to be inevitable.

Secondly, that most of our diagnostic mistakes are avoidable, that they are due to things left undone or to inaccurate observations, or to illogical reasoning, and that it becomes all of us not to console ourselves with the idea that an error was inevitable, but to endeavor to prevent similar mistakes recurring, and thus we will diminish the number of necessary diagnostic incisions or exploratory laparotomies, we in the meantime not forgetting the principle embodied in the old adage—that when there is a reasonable doubt, whether one of the above procedures may not lead to a successful curative operation, then let us give the patient the benefit of the doubt and advise accordingly.

LIVER INFECTION FROM APPENDICITIS.*

By W. S. THORNE, M. D., San Francisco.

We are occasionally confronted by a group of symptoms in appendicitis and the recurrent forms of that disorder that point to the liver or gall-bladder as the seat of lesion, rather than to the caput coli. The symptom complex of moderate liver or gall-bladder lesion has been so pronounced and classified, in many instances, as to have misled even the most experienced observers. The usual manifestations of inflammatory processes at or near the caput coli have been conspicuously absent, and in their stead there has been pain referred to the hepatic region; tenderness over the gall-bladder; jaundice more or less pronounced; pain in the epigastrium after food; bilious vomiting; scanty and highly colored urine containing bile pigment, and jaundiced sclera. So far as I am informed, the manifestations of liver symptoms in affections of the appendix, to the exclusion of those referable to it, have been rarely noted, nor has the etiology been much discussed. Dr. Moffitt, in a paper presented to the State Society at its last meeting, relates a case "of jaundice steadily deepening, leukocytosis marked, tenderness over the gall-bladder and pancreas, a Cammage test pointing to pancreatic lesion and in which an autopsy disclosed a septic peritonitis from a perforated appendix." The writer does not inform us that there was even a suspicion of appendicial involvement. That the symptoms in this case did not warrant surgical interference in the opinion of so astute an observer illustrates their misleading character and the fallacy of relying upon symptomatic treatment in abdominal lesions generally. The following cases illustrate the hepatic disturbance caused by lesions of the appendix in the absence of local symptoms pointing to appendicial trouble:

Case I. Patient male, aged 42; occupation, blacksmith. Eight years since he had a severe attack of vomiting following a full meal, with much pain referred to the epigastrium, which was relieved by oil and hot fomentations. A second attack followed a year later, very like the first in duration and intensity. From that time to the present he has had recurring attacks at shorter intervals. The pain is more intense than formerly, and morphine has been given hypodermically to relieve it. The pain invariably begins at the pit of the stomach and extends to the right hypochondrium. The skin becomes slightly jaundiced and the sclera distinctly yellow with each attack. The local physicians have assured him that he had gall-stones and advised operation for relief. One month since he had a recurrence of symptoms already described, viz., severe pains over the liver and at the navel, slight jaundice and dark-colored urine.

Status praesens, liver within normal limits, with tenderness over the gall-bladder; skin slightly jaundiced; abdomen moderately distended and resistant; no difference in tension of the recti muscles; no pain elicited by pressure over the caput coli or appendix; bowels torpid; urine scant, dark in color and contains bile pigment; red cells 4,500,000 leukocytes 15,000. The condition of the patient clearly warranted abdominal exploration, and although the symptoms were hepatic, I determined to settle first the question of appendicial involvement. On section, the caput coli was found buried in a mass of adventitious tissue in the midst of which was found the remains of a necrosed appendix and an ounce or more of pus. Two years after the operation, there had been no return of vomiting, pain or liver symptoms.

Case II. Patient, farmer, aged 48. First saw him in consultation at his country home. He had general peritonitis. His condition was so critical and his surroundings so unsanitary that an unfavorable prognosis was given. The history was that of repeated attacks of severe pains in the lower bowels, attended by fever, constipation, yellow skin, high-colored and scanty urine. He finally recovered from the attack and came to San Francisco for operation. There were no physical signs of bowel trouble at this time, but his skin was slightly icteroid, and the liver tender on deep pressure. On con-

*Read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

sultation with an eminent colleague, it was decided that the trouble was hepatic. The patient declined operation and returned home. The following year he had an attack of pain in the bowels (not localized), dark urine, with slight fever. On recovery he came to this city for examination. At this time there was no local tenderness or pain; the skin was slightly yellow as well as the sclera; the hepatic limits normal. On section the appendix was found flexed, constricted at the lower third and adherent to the bowel; vessels enlarged and the meso-appendix congested. During the past three years there has been no return of pain, jaundice or bowel trouble.

Case III. A lad of twelve years, at intervals of three or four months, becomes distinctly sallow, with slight tenderness over the liver, constipated bowels, dark urine, and anorexia. Declines to admit tenderness over appendix, but says he feels some uneasiness there at times when violently exercising. Symptoms pointing to mild hepatic and gastro-intestinal derangement have thus recurred for several years. The family declined an operation until finally the youth, becoming weary of his valetudinous condition, took the matter into his own hands and went to the hospital. Operation revealed a flexed adherent and congested appendix, the distal extremity being much dilated. Several years of college life have failed to develop a return of the old trouble.

The foregoing examples, selected from a number that have come under my observation, are sufficient, I think, to illustrate the preponderance of hepatic symptoms over intestinal in a certain percentage of cases, involving the appendix as the primary seat of lesion. That hepatic infection does occur in these cases, varying in degree and intensity, admits of no doubt, however pathologists may differ as to the precise mode of transmission.

Bourkhardt believes that the more frequent methods of infection are (1) by the retroperitoneal tissue and (2) by direct invasion. It is widely recognized that infection of the liver may occur as a result secondary to infections of the pelvic and abdominal viscera, but that this grave affection may result in some instances from appendicitis, so mild in character as to have been entirely overlooked by men of large experience, has not been generally recognized.

Dr. Munro says in relation to this point that we must appreciate that it is the milder, so-called latent forms, of appendicial inflammation that may start grave hepatic infections and are overlooked by those of large experience, and that retroperitoneal infection, lumbar flegmon and liver infection may result from a pre-existent appendicitis of which there was no history. Cases of post-operative chill; vomiting; tenderness or deep palpitation over the abdomen; rising pulse and temperature; jaundice, if present, slight; leukocytes often normal, or nearly so, present the phenomena of hepatic infection, although generally regarded as symptomatic of reinfection at the original site of operation, but which on examination are not found. Their true explanation remains unsuspected until revealed post-mortem. Such symptoms, Munro explains, may not supervene for days, or even weeks, after the attack of appendicitis. Marked or increasing enlargement of the liver, with or without jaundice of skin and sclera, suggest hepatic infection. A lad whom I saw on the eighth day after operation for suppurative appendicitis—the wound was satisfactory, and the patient had progressed favorably up to this time, when there had been a rise of temperature with profound jaundice and vomiting. There was marked enlargement of the liver and tenderness. No post-mortem was had. The symptoms in this case were those of liver infection, probably through portal infection.

Munro, quoting from Fowler, says, that infection from thrombophlebitis is not more common, is surprising, when we consider the free circulation that exists between the mesenteric and portal vessels. In the present state of our knowledge and observation we are warranted in assuming that hepatic infection from diseased appendices is possible. (1) Through the retroperitoneal lymphatics which extend along the retroperitoneal space to the liver; (2) through the portal system by reason of the free communication with the mesenteric vessels; (3) through the lymphatics of the peritoneum, and (4) by the mechanical portage of pus or germs directly to the liver.

In the symptomatology of appendicitis there is no one more delusive than pain. The explanation is anatomical. The nerves of the appendix are derived from the superior mesanteric plexus of the sympathetic, the branches of which accompany the ileocolic artery, sending filaments to the appendix. As this plexus gives off numerous twigs to the small intestine, it becomes clear how the pain in acute inflammation of the appendix may be referred to the whole abdomen, or to any part of it. Infection of the retroperitoneal space occurs in those instances in which a perforation takes place at some portion of the appendix not entirely enclosed by serous membrane; infection thus becomes extra-peritoneal. The not infrequent involvement of the fallopian tube and ovary in the female in appendicular inflammations is probably through the occasional presence of a prolongation from the appendix to the ovaries, known as the appendiculo-ovarian ligament. Infection is thus conveyed along this process to the ovary.

The importance of careful examination of the liver in appendicitis and the sequelæ following it cannot be overestimated, if the declaration of Munro be accepted, viz., that hepatic abscess is present in from five to ten per cent of all cases of appendicitis, and that appendicial affections have been variously confounded with septicemia, malaria, typhoid, spinal caries, ruptured hernia, and general miliary tuberculosis. A frequent diagnostic error is typhoid in which slight jaundice, pain in the right hypochondrium and a tender appendix have been overlooked.

The elimination of the appendix, therefore, as a causative factor in hepatic affections and septic conditions of obscure origin, should always be made.

Analyses of 500 cases of hepatic abscesses by Cyr show that 25 per cent perforated spontaneously, for the most part into the thoracic or abdominal cavities. Legg, Tillmans and Reichardt have shown that hepatic abscesses may heal by encapsulation and resolution, cicatrices that resulted from small abscesses having been demonstrated.

PERSONAL EXPERIENCES WITH FOOTBALL INJURIES.*

By RAY LYMAN WILBUR, M. D., Stanford University.

In view of the present wide discussion of the game of football as played in America, and especially of the appeal often made to physicians in individual cases as to the dangers of the game, it may be of some interest to review the various injuries that have come under my observation during five years at Stanford University. The list given does not include all the injuries sustained by the football men in these years, as some of them were treated by other physicians, but it probably includes all of the severe injuries, with the exception of a fracture of the elbow joint and a fracture of the clavicle. None of the injuries of the year 1903 are enumerated in the following list, as I was absent at that time. The players injured were largely members of the "varsity" squad, and most of the men were hurt in practice, rather than match games. A number of the more severe accidents occurred early in the season, and the victims were freshmen or beginning players. The number of men playing each year of the five can be roughly estimated as between sixty-five and one hundred. The following classification is by the injury sustained, rather than by the individual, who in some cases had several injuries at once. In all, eighty-eight individuals with accidental injuries severe enough to need a physician's services came under my observation. The minor accidents, bruises, mild sprains, wrenched muscles, etc., were taken care of by the trainer. The following is a list of the injuries seen:

Fracture of clavicle, 3.
Fracture of both bones of leg, 3.
Fracture of nose, 5.
Fracture of base of skull, 1.
Fracture of wrist (Colles), 1.
Fracture of ribs, 5.
Fracture of scapula, 1.
Fracture of zygomatic process, 1.
Fracture of phalanges, 3.
Fracture of carpal bones, 1.
Dislocation of acromial end of clavicle, 1.
Dislocation or loosening of rib cartilages, 3.
Dislocation of phalanges, 5.
Sprained or wrenched ankles, 6.
Sprained or wrenched knees, with varying degree of injury to joint, 21.
Sprained wrist, 1.
Sprained elbow, 1.
Shoulder wrench, 4.
Hematoma and subsequent thickening of external ear; "cauliflower ear," 1.
Laceration over eye from fall or blow (due to orbital ridge), 7.
Abscesses or infection following injury, 4.
Severe muscle tears, 5.
Cerebral concussion with unconsciousness of short duration, 1.
Fingernail torn off, 1.
Bursitis near elbow joint, 1.
Wrench of muscles of neck, 4.
Severe contusions or subcutaneous hemorrhages, 3.
Loss of teeth from injury, 1.

The only other type of injury noted, not included in the above list, was a dislocation of the shoulder joint occurring in a member of a visiting team.

This may seem like an amazing list of injuries, but when carefully reviewed and compared with other sports it is not as appalling as might appear at first sight. I have seen practically all of the above injuries sustained by men playing baseball, tennis, running on the track or exercising in the gymnasium. The only dangerous injury was the fracture of the base of the skull, and that might readily have been sustained in any game where running is indulged in, as it was the result of two men coming together full tilt with heads down—one with head gear and the other without it. All of the men injured have completely recovered with the possible exception of a knee or two left somewhat weakened and susceptible to strain. A number of the men with joint sprains had already been injured in football or other games before entering college.

The most striking point in looking over the varieties of injuries sustained is the large number of knee joints affected. With the development of padded football clothing, the use of headgears and noseguards, the injuries to the ears and nose and the number of bruises and contusions have been made less in the last three than in the first two years. Only one "cauliflower ear" would not have been the record five or ten years ago.

The ankle joint can be well protected by supports, but the knee joint, upon which much of the strain comes in football, and which can be readily injured in the piling up of men in the various mass-plays or in the sudden turns and falls of open playing, does not admit of proper protection with free enough use of the joint for satisfactory playing. The majority of these knee injuries were severe enough to be followed by effusion into the synovial sac, the much dreaded "water on the knee," of the players. Much discussion has been going on concerning the number of injuries sustained in mass plays as compared with open playing. In looking over the list of men hurt and the way in which the injury was sustained, I would say that there is very little choice between the two kinds of play.

In spite of my experience with football injuries, and while deploring the number of accidents occurring, I am in favor of the game of football. I have seen it develop too many men to want to see it turned aside. True, a number of players get hurt, but if any physician will look over the young men of good families that come under his observation and see the number of fops, the weaklings, the insipid, nervous, half-baked society beacons, the cigarette-sucking, cocktail-absorbing sports; the dissolute, immature boys with venereal disease, he need not deplore the fact that we have a game that makes for manhood. I have seen raw men from the country, raw in mind and body, developed by foot-

*Read before California Academy of Medicine, March, 1906.

ball into men with a capacity for self-control and ability to care for themselves, physically and mentally, that was astonishing. Loose habits and football are naturally antagonistic. Training habits have saved many a young man from himself and his associates.

Football is not a game for preparatory schools, but for universities, and there it should be under the charge of competent trainers, and should be played for sport, and not merely to win.

Treatment. The method of treating football injuries presents certain features that are characteristic. The majority of injuries are in well-muscled, hardy, healthy young men, who wish some kind of ambulatory treatment and who are anxious to get well at the earliest possible moment and take up the most active kind of physical movements. The fractures, dislocations and open wounds, are naturally treated along the usual lines for such conditions. Fractures of the fingers do not interfere much with playing after a few days if a wire splint is used and the injured bone is bound to the neighboring fingers. Fracture of the ribs without displacement soon gets well enough for active work if protected well with adhesive plaster and covered with sole-leather pads. The knee injuries require the most careful attention if the player is to resume football at an early date. In these cases there has usually been a severe wrench of the joint, either from movement of the body and thigh on a leg held immovable, or by direct violence to the knee or leg itself. Usually there has been considerable strain or tearing of some portion of the lateral ligaments, with injury of the synovial membrane, but in some cases the semilunar cartilages are loosened and the knee locks, in certain positions, or as in one case seen, a portion of the tendinous insertion of the quadriceps on the patella may be torn loose.

The early treatment depends upon whether the knee is seen immediately after injury or the next day. When the injury is seen early and no effusion into the joint has taken place, zinc oxide adhesive plaster dressing is immediately applied. The strips are put on first along the line of the injured ligaments (up and down the leg) and then circularly, covering the whole joint. I prefer to use two-inch strips torn part way down the center from each end so that four one-inch tails are obtained. The broad part of the untorn central part of the plaster is placed posteriorly and the ends brought around above and below the center of the patella respectively until the whole joint is covered. The leg should be bent slightly, and when this dressing is completed and covered with a roller bandage the patient can stand on the leg but not bend it. He is then put to bed, the limb elevated and the knee covered with ice bags, and a saline cathartic given. In most cases after twenty-four hours the patient can get up on crutches, no effusion takes place, and recovery is rapid. After a few days a second bandage is applied; if the knee is strong and free from pain except in special positions, a gap is left in the plaster posteriorly to permit of motion and the patient walks with a cane. In ten days in a favorable case he is ready for light work, but for three or more weeks he wears an adhesive plaster bandage covering the knee cap and the lateral portions of the joint, but separated enough behind to permit of running. By using the two-tailed strips this is readily applied.

When the injury is seen after effusion has taken place or where the movement of the knee cap over the particular surface of the femur gives a distinct friction rub, the patient is put to bed, the knee elevated and covered with lead and opium lotion on cloths and ice bags, a saline cathartic given as before and twenty-four hours allowed to elapse. Then it is treated as in the former case. It is often remarkable to note the comfort derived from the application of the adhesive plaster dressing and the rapidity with which the effusion is absorbed. More caution has to be used in getting a patient on his feet when the effusion is slowly absorbed. The fluid in the joint seems to interfere in some cases more than others with the strength of the joint, but as a rule it tolerates a small amount of effusion very well. When the cartilages have been loosened, similar lines of treatment are serviceable, but great care is to be used in permitting the use of the joint. Occasionally where the effusion is slowly absorbed a common adhesive plaster dressing with its consequent irritation of the skin seems to be of more service than the zinc oxide or moleskin plasters. For some time after the injury adhesive plaster supports must be worn over the knee. Elastic supporters are, in my opinion, worse than useless over joints where much strain is to be expected. They interfere with circulation and give when there is a strain. After the more acute symptoms of the injury have passed away, regular massage is very helpful if carefully done. In the later stage the use of an ointment made up of guaiacol, oil of turpentine and oil of wintergreen with lanolin is very useful in relieving the pain or soreness following the use of the joint.

Ankle injuries are treated on the same lines as those of the knee. Where there is considerable subcutaneous bleeding, the adhesive plaster can be cut down the front of the foot and tightened each day after massage or hot-air treatment to facilitate absorption. Until the blood is practically gone, the ankle is not safe for heavy work, as the adhesive plaster is too far away from the injured ligament it is to support. A day or two in bed is needed at first, then crutches, and then with tight adhesive plaster dressing and a firm shoe the patient can walk about. He should wear a plaster support for six weeks, reinforced by a leather ankle brace if he is to do any heavy athletic work. In some cases a thin jointed iron strip fastened to the outside of the shoe is of service in preventing recurrence. In binding up the ankle with adhesive tape, if it is desired to keep the patient from walking, after successive strips running from the bottom of the foot across the top and over the ankle joint have been applied, a few strips running tightly around the tendon Achilles and coming forward will prevent the foot being used as in normal walking. In all

severe ankle injuries the Roentjen ray is of service, and I have found it particularly of value in suspected fractures near the extremity of the fibula. The adhesive plaster dressing is often valuable in reducing the swelling before the plaster-of-Paris cast is applied in such cases.

In sprains of other joints the adhesive plaster dressing can be used as for the knee and ankle, and prompt recovery is the rule. The shoulder is the least satisfactory from the standpoint of treatment, and I have succeeded best with immobilizing dressing for ten days or two weeks.

Muscle tears can be readily repaired when plaster is applied in the direction of the fibres of the muscle and then securely bound into place with circular strips. After three to six days active work may be taken up if the dressing is kept on. When the insertion of a muscle is torn from the bone a longer time is required. Injuries to muscles of the neck are often very troublesome, but a strong collar of adhesive plaster, with the back of the neck well covered in, gives much comfort and permits of early playing. Contused areas often subside more promptly under the pressure of a good adhesive dressing than with other treatment.

In general my experience has been that in healthy men prompt treatment of the ordinary football injuries with close fitting adhesive plaster dressings leads to satisfactory and speedy results and that a combined early rest and ambulatory treatment produces as good terminal results as are obtained in injured joints treated along more conservative lines.

THE IMPORTANCE OF MORE CAREFUL OBSERVATION OF PATIENTS AFTER OPERATIONS ON THE PELVIC VISCERA.*

By C. GEO. BULL, M. D., Alameda.

My attention was first directed toward this subject about two years ago, when one of my patients complained of pelvic pain after I had removed a cystoma and pus tube, and done a suspension of the uterus. The right broad ligament presented a mass easily palpable—both externally and through the vagina—tender and somewhat globular in shape, and about the size of a small orange. This required persistent local and general treatment to cause its final disappearance, and a cessation of the tenderness and pain.

There was little or no temperature, no tympanites, no systemic symptoms, and the trouble was evidently not due to sepsis. Probably this was one of the post-operative exudates spoken of by Dr. Wakefield in his paper entitled: "Post-operative Pelvic Exudates," read before the American Medical Association in 1905.

The Frequency of Post-Operative Exudates.—After this occurrence I began to follow up my patients more closely, subsequent to operation, and finally concluded that the operator who studies and watches his patients carefully after a laparotomy will frequently be surprised to see how often pain, tenderness and discomfort, with or without palpable exudate or thickening, are apt to follow. These are often not so apparent until patients are allowed out of bed and begin to get about, and especially if they are allowed up too soon and are too active. It seems to be a fashionable fad nowadays to get patients up in the shortest possible time after abdominal section, but, personally, I do not favor this practice on account of the greater tendency to post-operative sequelæ.

It will be readily conceded that exudates, to a greater or less extent, are not unusual immediately following operations involving the necessity of leaving raw surfaces uncovered by peritoneum, and after operations necessitating drainage, also that extensive inflammatory exudates before operation are almost sure to be followed by some exudate afterward. In my own work it has seemed to me that exudate has been more liable to follow partial removal, say of a tube or ovary, rather than after entire ablation, perhaps because the stump was not so easily covered by peritoneum, or possibly because some infective material was left behind. These exudates, however, are generally absorbed within a reasonable time—a few months—though often persisting for six or eight months or even longer, and it is not uncommon for patients to say that others who had been subjected to abdominal section had told them that they were not entirely well for a year after operation. Possibly some of these cases may have been septic, undoubtedly many exudates are septic, and this does not necessarily preclude their disappearance without suppuration.

If a small infected portion of, for example, a tube be left behind an infective exudate will probably be thrown out, usually accompanied by temperature, sometimes by a peritonitis and general symptoms of infection. The question arises, can we prevent the formation of these exudates, or can we curtail the pain and discomfort they engender when formed? This brings us to:—

Their Prevention and Cure.—Exudates may often be prevented by carefully covering all raw surfaces with peritoneum, if this be feasible, and naturally a septic exudate would best be obviated by thoroughly removing every septic focus without contamination of adjacent peritoneum.

Curative treatment should be both local and general. Tonics, the iodides, mercury, fresh air, attention to bowels and kidneys, regulation of exercise, etc., comprise the latter, and prolonged hot vaginal douches—at least twenty minutes in length—applications of iodine, ichthyol and boroglyceride tampons, the former.

Dr. Goffe goes so far as to advise post-operative treatment, namely, douches and tampons, before exudates can be palpated in cases where adhesions have been broken up, beginning treatment in about two weeks after operation. If the exudates are certainly septic, treatment should consist of measures addressed to the general condition, sustaining treatment, saline purgatives, particularly if there is anything more than a local involvment of the peri-

*Read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April 17, 1906.

toneum, diuretics and diaphoretics—the two latter being met by saline infusions—and possibly reopening the abdomen to drain the site of trouble, especially if pus be present.

Occasionally hematomata result from operative work, usually due to incomplete hemostasis brought about perhaps by piercing a small vessel under the peritoneum in passing a suture, or slipping of a ligature in a buried stump. These conditions generally subside under appropriate treatment, comprising rest in bed, and local applications, though discomfort and pain are present for some time. Another class of cases may present the evidences of an infective phlebitis of one or more of the veins in the pelvis.

Adhesions, however, are by far the greatest cause of pain persisting after operation. These are caused by rough handling of peritoneal surfaces and leaving raw tissues uncovered by peritoneum. We are often conscious of the amount of abrasion of the delicate epithelial surfaces produced, for instance, by attempting to work through a very small incision, or in the separation of old adhesions binding down a uterus, ovary or tube. It is of course impossible in some instances to cover all raw surfaces from the nature of the case; for example, in removing a pus tube buried in a large exudate involving rectum and broad ligament, and in such a case it may become necessary to leave a portion of the exudate on the rectal wall to avoid tearing it. If we can draw over enough peritoneum to cover this raw surface, well and good; but often that is not possible without too much tension, and we then have an ideal condition of affairs to cause the formation of adhesions. Following such cases as these, adhesions are ordinarily unavoidable, and are usually accompanied by a train of well marked sequelæ.

The symptoms are: pain, often severe, tympanitis if the adhesions in any way implicate the bowels, and ranging from this to complete intestinal obstruction, dysmenorrhea, sterility, frequent micturition. And in fact the functions of any organ implicated in the adhesions are rendered painful and difficult. It is frequently found that a small constricting band is the cause of a great deal of suffering.

As to *treatment* which is *preventive*, cargile membrane from which so much was expected, has proved disappointing, sterilized oil has been frequently tried as well as glycerine, but cannot be depended on to remain where it is placed. Aristol is now in considerable vogue in New York. It is simply dusted on, and is said to work well and to be productive of no harm. It is too early to be sure of results in the cases I have used it in.

Dr. Carpenter informs me that he has been using sterilized vaseline with good results. The better method, where possible, is to cover all raw surfaces with peritoneum or omentum, and to practice the strictest asepsis and care in handling the peritoneal surfaces.

After operation something can be done in the way of preventing the formation of adhesions by promoting early peristalsis, and when they are to be expected magnesium sulphate is often given by stomach tube before the patient leaves the table at Johns Hopkins Hospital, Baltimore.

My own practice is to give a half ounce of magnesium sulphate in half or two-thirds of a glass of water, to be repeated in three hours if necessary. The first dose is given usually within twelve hours after operation. If neither first nor second dose acts, a high enema of epsom salts and glycerine is given as an adjuvant. Castor oil acts rather well if given in large enough dose to operate reasonably soon.

In the *American Journal of Obstetrics* for March, physostigmine 1-100th of a grain three times a day subcutaneously is mentioned in an article by Dr. Cumston as being used by Vogel to promote peristalsis after operation. I have tried it in two cases, but its action seemed very slow, taking nearly two days before evacuations began. Perhaps this would be useful as an aid to the usual cathartics given soon after operations or when the stomach cannot retain anything.

Later, if adhesions have formed, the symptoms may be ameliorated by massaging and stretching them through the vagina, and the use of tampons. The more perfect the operator's technic, the fewer cases of adhesion, with their train of consequences, will occur. Still there will occasionally be cases of this character which, if severe, may require a laparotomy to sever the constricting bands and release the viscera, whose functions are thus interfered with.

When in Berlin, I noticed that the majority of operators preferred generous incisions which afford easy access to the abdominal contents, thus helping to prevent undue handling of the organs and injury to the edges of the parietal peritoneum, and to that degree lessening the tendency to adhesions but somewhat increasing the liability to hernia.

As regards frequency of occurrence, I have made a number of inquiries relative to the percentage of cases presenting post operative pain and disability, but have not received data enough to draw any conclusions in this respect.

GENERAL DISEASES AS A CAUSE OF DISEASES OF THE EYE.*

By W. W. WARD, M. D., Woodland.

An abnormal condition of the eye as a cause of functional disease of the nervous system and even of organic disease of certain portions of the body has been a popular subject in medical literature for the past decade. Of eye strain as a cause of headache, neuralgia, chorea, sleeplessness, chronic gastric and digestive disturbances, epilepsy, nervous prostration and insanity, we have probably heard too much. It may not be unprofitable, therefore, to look upon the other side of the shield and read carefully what is written there, particularly in these days when there exist not only specialties, but specialties within specialties, and matters medical are viewed from as many different standpoints as there are specialties.

Emphasis, where emphasis is now assuredly due, furnished the motive for the preparation of

*Read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

this paper. I advance the proposition that the ophthalmologist is a general practician. No other specialty demands such a knowledge of general or systemic diseases as that devoted to the diagnosis and treatment of affections of the eye. A mere recital of the etiology of the most important of these affections will render this truth apparent.

Beginning with diseases of the optic nerve, we note that optic neuritis has as its starting point, in nearly all cases, some form of meningitis. It never occurs in spinal meningitis, but is quite frequent in basic cerebral meningitis, whether due to injury of the head or to tubercular disease. The inflammation in these cases travels down the inner sheath of the optic nerve, along its interstitial connective tissue, or in some cases along its intrinsic blood vessels, from the brain or the brain membranes. From the local meningitis that attends intracranial tumors or syphilitic disease the process is the same, a descending neuritis. Active mercurialization is the treatment for specific cases, and the sooner the diagnosis is made the better the prognosis.

Among other causes are:

1. Chlorosis in which the papillitis is due to the disordered state of the blood and readily yields to the administration of iron.

2. Suppression of menstruation from exposure to cold where an acute papillitis and rapid blindness may result. Irregularity of menstruation and the climatic period also give rise to optic neuritis, but in a more chronic form. Needless to say the treatment here should be directed toward restoring the uterus to normal action when possible.

3. Rheumatism, influenza, malaria, typhoid, measles and scarlet fever have each occasionally given rise to papillitis.

4. General lead-poisoning will produce optic neuritis and sudden complete blindness may occur in connection with an attack of lead colic. The treatment is for the general condition.

Retro-bulbar neuritis is usually due to chronic nicotinism, alcoholism, or both. Prohibition is the main treatment. In its acute form, rheumatism is the usual cause, when administration of the salicylates is indicated.

Atrophy of the optic nerve may follow papillitis from any of the causes before mentioned, but in its primary form it is most often associated with tabes dorsalis. One-fifth of all the cases of tabes are afflicted with progressive optic atrophy, which is probably the same process that attacks the posterior columns of the cord. It attacks both eyes, usually simultaneously, but the disease in one eye may precede that in the other by from one to four years. The sclerosis as a rule comes on early, and optic atrophy may not only be the first symptom of tabes, but it may precede all spinal symptoms by from two to twenty years. This, together with two other symptoms that usually come on early, namely, the Argyll-Robertson pupil, and the absence of patellar reflex, enable us to make an early diagnosis. This atrophy advances slowly but surely until there is complete blindness, and hence is well named "progressive." It occurs also in such diseases of the brain as disseminated sclerosis and progressive paralysis of the insane. In any case the treatment consists of the management of the causal disease.

The retina is seldom affected by disease which is limited to itself alone, or even to the eye alone, but most often lesions of the retina are part of a general disease, and are frequently of valuable assistance in the diagnosis of such. The diseases most frequently producing serious retinal complications are diseases of the kidneys, diabetes, syphilis, septicemia, and leukemia.

Among ocular affections, papillitis and choroiditis almost always lead to retinal changes, the former because of the interference of blood supply produced by the swelling of the disc, and the latter on account of the close anatomical relationship of the choroid and retina. Both papillitis and choroiditis, however, are usually in turn dependent upon some general disease.

Retinal hemorrhages, aside from the very frequent cause, trauma, are as a rule due to alterations in the blood vessels, or to changes in the blood itself. They occur with comparative frequency in general arteriosclerosis, nephritis, gout, diabetes, anemia, leukemia, purpura and scurvy. When such predisposing factors are present, the immediate cause is often violent exertion, such as straining at stool or coughing. They occur as the result of menstrual disturbances also; and in the new born from pressure during delivery, which may account for many obscure cases of congenital amblyopia. Other general causes mentioned by authors are lead and phosphorous poisoning, jaundice, pregnancy and parturition, pernicious malaria, pyemia, and septicemia.

Retinitis is an active inflammatory condition only as the result of trauma. If associated with neuritis we term it neuro-retinitis. All other varieties are the result of degenerative or atrophic changes, and occur largely as an accompaniment of general diseases. Thus we have syphilitic retinitis, albuminuric retinitis, diabetic retinitis, septic retinitis, leukemic retinitis.

Of choroidal, ciliary and iritic disease, it is claimed that fully seventy-five per cent is due to constitutional syphilis, inherited or acquired, twenty per cent to gout and rheumatism, and the remaining five per cent to toxic and other causes, such as lead-intoxication, gonorrhea, etc.

If this be true, then the general treatment should be our main reliance, as we know it is. Administration of the iodides, mercurials, salicylates and other internal remedies are merely supplemented by local applications, because we are treating a general condition, not simply a local one.

Primary disease of the sclerotic is not a common one from any cause, but whether superficial or deep it is often found in persons with a feeble circulation and a liability to catch cold. In some cases there is a definite family history of tuberculosis; in others the rheumatic diathesis is present.

The cornea of the eye and the enamel of the

teeth are both farther removed from the blood vessels than are any other tissues of the body, and are, therefore, especially affected by malnutrition. Both are extremely susceptible to disturbances of general nutrition from defective supply, or bad quality of the blood. Ulceration of the cornea always means deficient vitality, whether bacteria be locally active in the ulcer or not. This is evident in badly nourished and anemic children and in tuberculous young subjects, who are the greatest sufferers from this eye trouble. Where traumatism and the entrance of micro-organisms is a cause, the disease is all the worse in such subjects.

Parenchymatous keratitis furnishes the most conspicuous example of the effect of a general disease upon the eye. The ordinary cause is syphilis, over fifty per cent of the cases being due to inherited syphilis. It is more common in girls than in boys, and appears most frequently during the second dentition or at puberty. The condition consists in a deep infiltration of the cornea without ulceration, and we manage a case by treating the cause. No local remedy or combination of local remedies can effect a cure of this disease.

In diseases of the conjunctiva alone do we find a realm where local therapeutics are deemed paramount; but even here we find conditions that resist applications of any kind, but readily yield to a free use of the salicylates internally administered. By far the most common form of all inflammations of the conjunctiva is phlyctenular conjunctivitis, which belongs to the scrofulous period of life. The internal administration of tonics and a general treatment conducted with due regard to the etiology is of special importance here.

Diphtheritic conjunctivitis is now treated by subcutaneous injections of the antitoxine, which treatment has rendered the prognosis much better than it formerly was, just as it has in diphtheria of the throat, or of any other portion of the body.

Now lastly as to eye strain, a condition deemed so important that our California legislature has recently been persuaded to recognize a separate specialty for its treatment, optometry, (which by the way is the most foolish piece of legislation that a state has ever foisted upon a confiding public). I ask is that condition in any way dependent upon general affections? Those "optometrists" who advertise themselves as eminent eye specialists have already announced that it is not.

Asthenopia may be due to a strain of the ciliary muscle as in hyperopia or astigmatism; to a strain of the internal rectus as in myopia or astigmatism; or to a want of balance of other ocular muscles; or to anisometropia; each of which conditions is rectified by local treatment—glasses, pilocarpine, exercises, or operations. But in many cases it is also due to a central nervous affection.

Nervous asthenopia is often found in cases of neurasthenia. In this affection the derangements of vision are purely functional, like all other symptoms of the disease, and are not dependent upon an error of refraction or want of muscular equilibrium. It is likewise not dependent upon any organic disease of the retina, or other portions of the visual apparatus, but consists in an incapacity of the eye for any continuous exertion, in spite of there being good visual power.

Patients will complain that after reading or working for even a short time everything becomes covered with a cloud, or that they will suffer from smarting or watering of the eyes, or that it brings on headache. When no strain is put upon the eyes there is usually no trouble, but in some cases the pains never entirely disappear, or a great sensitiveness to light is constantly present. This is very common in school children who have been too closely confined to their books, or have not had enough of their natural outdoor life.

The most important and characteristic symptom of this trouble is concentric contraction of the fields of vision as determined by the careful use of the perimeter. The phenomenon known as the fatigue field is well marked in adults suffering from nervous asthenopia. Other nervous symptoms besides those manifest in the eye are usually present, but not always so.

The treatment is rest of the eyes from near work and a general building up of the nervous system by cold baths, open air exercise, and nourishing food, with administration of iron, nux vomica and other tonics. Glasses will do but little good even if there exist some ametropia. Nervous asthenopia occurs also in hysteria and in traumatic neurosis. I had an interesting case under observation a few months ago due to the last named cause.

In September, 1904, Miss S——, a school teacher, came to me complaining of attacks of blurring, especially in the left eye, that would last from one to three days and then remit. During these attacks she would suffer from photophobia, headache, and dark spots floating before the eye that would almost totally incapacitate her for her work, which nevertheless she persisted in doing, being an individual of strong will power. She had always been robust and healthy till two years before, when she was violently thrown to the ground from her cart by her horse becoming frightened at a railway train, and being brought suddenly to a stop by running into a telegraph pole. She was considerably shaken up, and for six weeks was unable to attend to her duties at school. Ever since that accident she seemed very nervous, starting at every little noise, and suffered from insomnia and frequent headaches, attacks of numbness at the back of the head and of paresthesia on the left side of the face and head; from intense fear in riding or driving and an inability to concentrate her mind upon any work whatever. There were spots of anesthesia on the left side of the forehead.

Upon examination of the eyes no opthalmoscopic changes were found in either, the pupils were alike in size and active, the cornea showing an astigmatism of less than half a dioptre, 90 degrees, and the vision was 20-12 in each eye. The left internus was unsteady. The perimeter showed a normal field for white, red and green in the right eye, but there was a concentric contraction of the field in the left, approaching to within 20 degrees of the fixation point.

All of the eye symptoms disappeared, together with abatement of the other symptoms, under a treatment for the general affection.

Remember our new address, 2210 Jackson Street, San Francisco.

MINUTES OF THE HOUSE OF DELEGATES, SESSION OF APRIL 17TH, 1906.

The house was called to order at 8:25 p. m. by the President, Dr. R. F. Rooney. On roll call thirty-eight Delegates were noted present, and as there was a quorum, the President called for the regular order of business. The report of the Secretary was then read.

On motion of Dr. J. H. Parkinson, Sacramento, a committee of five to consider and report upon all reports of officers, was appointed by the chairman as follows:

Dr. J. H. Parkinson, Sacramento, Chairman; Dr. C. D. Ball, Dr. J. L. Asay, Dr. W. F. B. Wakefield and Dr. J. Maher.

The report of the Council was then read by the Chairman, Dr. C. G. Kenyon, and referred to this committee of five. Report of the auditor was read and referred to the same committee. Reports of committees were then called for:

Committee on Scientific Program—This committee handed in no written report, but stated that the clinics to be held during the present session would be announced later.

Committee on Public Policy and Legislation—Dr. J. H. Parkinson, Chairman. Dr. Parkinson's report was presented and dilated upon by himself verbally. It dealt principally with the question of fees for life insurance examinations, but unfortunately, we have no transcript of his remarks in full. Dr. W. W. Kerr in discussing the remarks of Dr. Parkinson stated that ten years ago when the New York Life Insurance Co., reduced its minimum fee from $5.00 to $3.00, he stated publicly that he could see no reason for the reduction, and that he personally should not accept the reduced fee. He stated that his attitude was exactly the same now as it was then; however, he was opposed to attempting to coerce men and obliging them to resign from the position as insurance examiner if they individually desired to accept reduced fees.

Dr. Parkinson offered the following:

Resolved, that the question of reduction in fees for medical examinations for life insurance companies be referred to the County Societies with instructions to take immediate action with a view to arresting this movement.

This resolution was duly seconded and in the discussion which followed Dr. van Zwalenburg read some resolutions which have been adopted by Riverside County.

Dr. Seawell referred to resolutions which had been passed by Sonoma County Society, and said that if all would abide by the resolutions and by the agreement, the question would be solved; however, one member had resigned from their Society in order to undertake this work at reduced fees.

Dr. Ball referred to an agreement existing in Orange County, and stated that all the doctors in the county had signed this agreement, and had refused to do the work at reduced fees.

Dr. Bates of Davisville said that Yolo County had passed similar resolutions, and that the physicians were living up to them.

The question being then put, it was unanimously adopted.

Dr. Parkinson introduced the following:

Resolved, that the question of amending the law relating to the registration of births so as to place the responsibility for this upon the parents where it properly belongs, be referred to the Committee on Legislation, with instruction to, if possible, procure the necessary amendments. Carried.

The amendment to the constitution which was introduced last year and which has been published twice in the Journal, was then called for and adopted. This is as follows:

To amend Article 10 by adding after the second sentence the following: "The fiscal year of the Society shall be from January 1st to December 31st. The number of members in good standing in each component Society on the first day of January of each year shall be taken as the basis for the assessment for that fiscal year as fixed by the House of Delegates." This amendment was unanimously adopted.

The following amendments to the By-Laws were then introduced and as required by the By-Laws were laid upon the table for twenty-four hours before being considered:

Article 8, Section 12: Amend so as to read, "The Secretary of each component Society shall forward its assessment, together with its roster of officers and members, list of delegates and list of non-affiliated physicians of the County to the Secretary of this Society before the 1st day of February of each year."

Add to Article 10, Section 5, the following sentence: "Names of additional members may be transmitted to the Secretary of this Society at any time during the year, but all names transmitted prior to the 1st day of August shall be accompanied by the assessment to the State Society for that year."

The following amendments were introduced by Dr. J. Lambert Asay: "Amend Sec. 9, Art. VIII, by adding thereto the following after the word **attend,** 'provided that the consent of the society of the county in which such physician may reside be first obtained' so that said section may hereafter read as follows: 'Sec. 9. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, provided that the consent of the society of the county in which such physician may reside be first obtained.'

Also to amend Sec. 14 of said Art. VIII by adding thereto after the sentence 'he may continue as or become a member of such society' the following words: 'provided that jurisdiction be first waived by the society of the county in which such physician may reside' so that said section may read as follows:

'Sec. 14. In counties where it is not practicable to organize a County Medical Society, any member of the profession in said county may have the privilege of uniting with the society of an adjoining county, but such membership shall continue only during the time that no organized County Medical Society exists in that county. If, however, it is more convenient for a physician who lives in one county to attend the meetings of an adjoining component society, he may continue as or become a member of such society, provided, that jurisdiction be first waived by the society of the county in which such physician may reside.'

Dr. J. H. Parkinson requested unanimous consent to introduce Dr. McKee of Sacramento, for the purpose of discussing the question of medical legislation. Dr. McKee stated that he anticipated somewhat more than the usual amount of trouble from the introduction of bills injuriously modifying laws relating to the practice of medicine in this state at the next session of the legislature. He recalled the failure to defeat the anti-vaccination bill at the last session; he suggested that a committee of three from each senatorial district be appointed to act as and with the legislative committee and to confer with representatives from each district. He urged upon physicians and particularly members of the society the necessity for accepting nominations to the legislature in order to properly look after the public health and welfare of the public. He referred very graphically to the patent medicine abuse and to the fact that the efforts of **Collier's Weekly** and the **Ladies Home Journal** were not properly backed up by our profession.

Dr. E. Briggs of Sacramento, requested that the House of Delegates endorse the Vermont law in regard to the examination of the eyes of school children. On motion this was referred to the committee of five already mentioned.

The minutes of the session were then read and

approved and on motion the House of Delegates adjourned to meet at 8 p. m., April 18, 1906.

(Note: Owing to the catastrophe which occurred at 5:15 a. m., April 18th, no further sessions of the society were held. The President, the Secretary and two or three members of the Society assembled at the building in which the sessions were to have been held, on the morning of the 18th and at about 9:45 a. m., declared the society adjourned sine die. Under the Constitution and By-Laws, all officers will hold office until their successors are elected and qualified.)

COUNTY SOCIETIES

Orange County.

The Orange County Medical Society held its regular monthly meeting Tuesday, June 5th, with a good attendance. Dr. Soiland of Los Angeles, read a paper on "Electrical Appliances and Electro-therapeutics in General Practice." The paper was well adapted to the comprehension of the general practitioner and was well received. A committee was appointed to solicit subscriptions for physicians of San Francisco. The following are the names and amount subscribed:

Dr. Jones, $2.50; Dr. Dryer, $5; Dr. Gordon, $10; Dr. Ball, $5; Dr. Dobson, $2.50; Dd. Medlock, $2.50; Dr. Boyd, $5; Dr. Clark, $5; Dr. Burlew, $5; Dr. Wehrly, $1; Dr. Johnson, $5; total, $48.50:

A few who were not present are to be heard from. Resolution was adopted making all reputable physicians eligible to membership. The resolution was made to conform to the article in the State constitution relating to membership.

H. S. GORDON, Secretary.

Sacramento County.

The members of the Sacramento Society for Medical Improvement certainly do not approve of cheap fees for life insurance examinations, and they have expressed themselves in no uncertain terms. The following resolutions were adopted at the regular meeting of April 24th, 1906:

"Resolved, That members of the Sacramento Society for Medical Improvement who examine in Life Insurance for a fee less than that of the fee bill, whether paid in individual fees or in salary, be dropped from the roll of the Society,

"That it is the sense of this Society that the rights and privileges of consultation with members of this Society be denied those whose names have been dropped from the roll for examining for less than the prescribed fee,

"That any special arrangement for increase of fee to $5.00 per examination made between medical examiner and local agent shall not be accepted by this Society, and the special arrangement must be made between the medical director of the company and the examiner."

At the meeting of May 15th, the following resolution was unanimously adopted:

"That any member of this Society accepting a position as Life Insurance Examiner, which another member of the Society has vacated under the resolutions adopted April 24, 1906, even though the fee in question shall have been raised to $5.00, shall be dropped from the roll of this Society and be denied the rights and privileges of consultation with members of this Society."

These resolutions are to be commended to the careful attention of all county societies which have not already taken action in this most important matter of fees.

San Francisco County.

The San Francisco County Medical Society resumed its regular meetings on the night of Tuesday, July 10th. The meeting was held in Lane Hall and the attendance was very good, considering the circumstances. The President, Dr. Wallace I. Terry, presided.

Dr. Jellinck presented a patient exhibiting an exceedingly interesting condition of anemia which has been diagnosed as splenic anemia or Banti's disease. As all the records and history of this case were destroyed by fire, the history, as reported, was from memory. The patient first presented himself to the attention of the recording physician some six or eight months previously, at which time he was exceedingly anemic, the hemoglobin being only about 10 per cent; red blood-corpuscles, about 200,000, and white corpuscles less than a thousand. Shortly thereafter he developed very severe hemorrhage from the stomach which occurred at intervals. He was watched very carefully and put upon a treatment designed to, if possible, build up his physical condition. At the time the patient was presented to the Society, he had hemoglobin about 40 per cent; red blood cells about 2,000,000 and white cells about 1200. In view of the condition and diagnosis, the patient is to be subjected to an operation for the removal of the spleen, in about a week.

Dr. C. M. Cooper reported an interesting case of Adams-Stokes Disease, in which a lesion of the bundle of His was demonstrated postmortem. He also presented two patients exhibiting the same phenomena and demonstrated the venous and arterial tracings.

Dr. A. W. Hewlett demonstrated tracings showing the heart-block due to administration of digitalis, and called attention to the fact that the use of atropin in connection with digitalis might possibly stimulate the bundle of His and prevent the occurrence of heart-block in cases where it is necessary to administer digitalis and where this unpleasant symptom follows such administration.

Dr. W. H. Winterberg presented a paper, giving his results in the use of scopolamine-morphine anesthesia. As a result of his experience he believed that this method should receive careful attention at our hands and that when properly followed it was of very great benefit, for even if it was necessary to resort to other anesthesia, a very much smaller amount of the anesthetic would be required and the reaction of the patient would be markedly less.

Sonoma County.

The Sonoma County Medical Society met in regular session at the residence of Dr. C. H. Thompson, Dr. Stuart, the President, presiding. Those present were: Drs. A. McG. Stuart, J. H. McLeod, G. W. Mallory, C. H. Thompson, P. A. Meneray, E. M. Yates, R. M. Bonar, W. L. Fay, J. W. G. Dawson, F. O. Pryor, J. W. Seawell, E. J. Huffman, A. B. Herrick, J. M. Crump, R. A. Forest, H. J. Trachman, S. S. Bogle, I. A. Wheeler, J. W. Kerr. Visiting physicians Dr. J. Temple and Dr. Merrithew.

A short retrospection of society was read by secretary, the records, books and papers of society having been destroyed in the great catastrophe of April 18th

Communications were read from Sacramento County Society and Orange County Society, informing us of their future intention of charging old line insurance companies $5.00 for medical examinations.

A communication was received from Willamette Society in Oregon in which they enclosed $25.00 to aid the doctors of Santa Rosa who had lost in the recent calamity, and mentioning sending the same sum to aid San Francisco. This was thankfully received, it being the first aid the society here has received. Six members of our society lost library, instruments and furniture, four others lost their offices.

Dr. Dawson entertained the society by a clever

speech, entitled "Deductions from Experiences of an Earthquake." Dr. Mallory read an interesting paper, "Amputation of Cervix," and told of some unusual surgical cases he witnessed during the past winter in New York. A discussion followed in which all present took part.

Dr. and Mrs. Thompson invited us to the banquet board, where we spent a most enjoyable time, entertained by speeches, toasts, etc., until a late hour.

G. W. MALLORY, Secretary.

Ventura County.

The second bi-monthly meeting of the Ventura County Medical Society was held on Monday evening, April 9th, 1906, at Oxnard, at the office of Dr. G. A. Broughton.

Dr. Broughton was the orator of the evening. His subject, Obstetrics, was treated from the twentieth century standpoint. A discussion by the society followed, individual experiences being exchanged, that were as interesting as they were mutually profitable.

Two very unusual cases, very recent, were adverted to by Dr. Broughton, in which he had, assisted by Dr. A. A. Maulhardt, operated under great difficulties, and in which both cases terminated successfully. The first was an appendectomy in a woman five months pregnant, complicated by a tumor of the left ovary and which had given no symptoms prior to operation for the appendicitis, appendix and left ovary being removed, pregnancy not being interrupted.

The second was a cholecystotomy undertaken for evident obstruction, section disclosing one live and one dead round worm, measuring each one-fifth centimeter thick and fifteen centimeters long.

Dr. Broughton was congratulated on having finally completed his fine new hospital and modern operating room.

The Society adopted a resolution that on and after July 1st, 1906, its minimum fee for medical examinations shall be $5.00 for old line insurance companies, and that for fraternal organizations, the minimum fee shall be two dollars.

President Cunnane directed that the chief life insurance companies and fraternal organizations be notified to that effect.

The members were then invited to partake of a collation prepared for the occasion and which was much enjoyed by all present.

The Society gave Dr. Broughton a vote of thanks.

CHARLES TEUBNER, Secretary.

The following is a list of the contributors (Ventura County Medical Society) to professional relief fund of San Francisco:

Charles Teubner, M. D., Saticoy, $5; T. E. Cunnane, M. D., Ventura, $5; F. H. Huning, M. D., Ventura, $5; J. C. Bynum, M. D., Ventura, $5; W. R. Livingston, M. D., Oxnard, $5; R. D. Potts, M. D., Oxnard, $5; G. A. Broughton, M. D., Oxnard, $5; A. A. Maulhardt, M. D., Oxnard, $2.50; total $37.50.)

LANE LECTURES.

The coming course of Lane Medical Lectures in Cooper Medical College, will be by Dr. Jno. C. McVail of Glasgow, commencing August 20th, 1906. Two lectures will be given daily during five days.

The practical utility and public beneficence of this year's instruction will appeal to the medical profession as opportune and especially attractive, and it is hoped that all who are interested in the progress of Sanitary Science and Medical Education, will accept the cordial invitation to these lectures on,

The Prevention of Infectious Disease.

First lecture—Progress of modern sanitary administration with description of public health organizations of towns and counties. Typhus fever which has been practically abolished by means of sanitation. The results of modern housing conditions and the practical importance of building regulations will be considered in a way to offer beneficial suggestions in the re-building of San Francisco, as well as aid in the welfare of every other community.

Second lecture—Plague: Endemic centers of typhus and plague promoted by similar conditions and of interest to the Pacific States. Water supply, sewage, garbage disposal; rats, etc., will be considered in their relation to infectious diseases.

Third lecture—Enteric fever: Methods of its spread by water, milk, food, oyster culture, etc. The discussion of typhoid fever opens largely the field of public health efforts.

Subsequent lectures will be devoted to the infectious diseases of childhood. Measles and the sanitary control of schools and school hygiene in general.

Scarlet fever. The worth and worthlessness of hospitals in controlling scarlet fever and the improvement which may be made in hospital construction so as to minimize return cases.

Diphtheria. The stationary nature of its mortality as compared with other infectious diseases. The influence of antitoxin treatment.

Smallpox. With illustrations of its extraordinary prevalence in pre-vaccination times. The value of hospital isolation for smallpox.

Tuberculosis. Its remarkable dimunition as a result of measures of ordinary sanitation. Special measures which are now being taken to still further lessen the spread of disease; home measures, consumption hospitals, sanatoria, convalescent homes, labor colonies, etc.

Finally the general question of the ethics of disease prevention showing the effect of sanitation, vaccination, isolation and public health effort has been to improve the race physically and morally and that the practical outcome is most encouraging for the future.

SAN FRANCISCO POLYCLINIC.

The San Francisco Polyclinic has bought the property at 443 Fillmore street, on which is a three-story building, and as rapidly as possible all necessary alterations will be made upon it. It contains twelve rooms and will make a convenient dispensary building, when fixed up. The staff is planning to have the building in running order by September 1st, and expects to open with the regular post-graduate course at that time.

BANQUET TICKETS.

Those who purchased tickets for the dinner which was to have been held on the evening of Friday, April 20th, and who have not had their money returned, are requested to write to Dr. George E. Ebright, 2500 Fillmore street, San Francisco, who will send them check for the amount subscribed.

Remember our new address, 2210 Jackson Street, San Francisco.

California State Journal of Medicine.

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PHILIP MILLS JONES, M. D., Secretary and Editor

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten.

Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. IV JULY, 1906. No. 7

EDITORIAL NOTES.

Once upon a time, in the far away and the long ago, there lived an exceedingly wise man. Uncouth he was in shape, and ugly of head and face; but the Gods had given him that which is above price —understanding. And as the years of his life went by, he wove the things which he saw into stories, and because we are all children. his stories are now classed by dealers as "children's tales," at which wise old Aesop must smile to himsself. Do you remember the fable of the man who came, tired and footsore and cold and hungry, on one winter's night, to the cave of the strange Beast and prayed for shelter? And the Beast took him in, and put sticks on the fire to warm the man; and the man sat by the fire and chafed his hands and blew upon them. Said the Beast, "Why do you blow upon your hands?" and the man said, "To warm them." And the Beast wondered greatly thereat, but presently went about his work and prepared soup, steaming hot and good to smell, and gave the man to eat. And the man took the soup and, seeing that it was hot, blew upon it, whereat the Beast, knowing the soup to be hot from the fire, was greatly astonished. Quoth he: "Wherefore do you blow upon the soup?" And the man said, "To cool it." Then the Beast became enraged, for Beasts never lie, and he thought the man was lying to him and making sport of him; so he turned upon the man and cast him out into the cold and the night, saying: "One who can blow hot and blow cold with the same breath needs not shelter and fire, and is too clever to associate with simple beasts." The wisdom of old Aesop, preserved to us in the fable, comes to mind upon reading some statements in *Collier's Weekly* of August 4th:

THE SAME BREATH

The postal authorities in New York recently issued a fraud order against a "Prof. Adkin" who practiced 'Vitaopathy' and offered to 'talk dead men back to life.' One of the advertisements said: "In Prof. Adkin's laboratory his chemists are daily engaged in extracting the life-and-health-giving principle from rare vegetables, fruits and plants." Mr. Samuel Hopkins Adams called upon the "Professor" and desired to see the laboratory. He says: 'When called upon to give details, Professor Adkin could produce neither laboratory, chemists, vegetables, fruits, nor plants. Under pressure he bashfully explained that his treatment consisted of tablets put up to his order by Parke, Davis & Co., of Detroit. This testimony should be interesting to physicians, since Parke, Davis & Co. are the largest manufacturers of 'ethical' preparations advertised to the medical profession in the country, and are earnest claimants of high professional standing. How their ethics comport with this acting as supply to a proven and self-convicted quack, I leave for them to explain.'"

In the same article in *Collier's* Mr. Adams touches upon one form of radio-quackery. There has been lots of this sort of radio-quackery enterprise, and some of it has been directed entirely toward the members of our profession. One of the concerns intended to fool the layman and not the physician is the Dr. Warner Remedy Co. This Mr. Adams investigated and found it in charge of "one Bird Collins, a graduate from the fraudulent nostrum school as exemplified by Wine of Cardui." The conversation is so interesting, particularly to physicians to whom "ethical" houses appeal for patronage, that we take the liberty of reprinting it as republished in *Collier's*.

ANOTHER EXAMPLE

"Are Radium Rings radium?"
"No."
"Is there any radium in them?"
"No."
"Then why do you call them Radium Rings?
"It's a trade name."
"Is Radiozone radium?"
"No."
"Is there any radium in it?"
"No."
"Then why do you call it Radiozone?"
"It's a trade name."
"Is Dr. Warner here?"
"No."
"Is there any Dr. Warner in your company?"
"No."
"Then why do you call it the Dr. Warner Remedy Co.?"
"It's a trade name."
"Is your name Collins?"
"N—yes."
"Is it a trade name?"
"No."

"Do you make your own remedies?"

"No."

"Who makes them?"

"Seabury & Johnson." (This firm, like Parke, Davis & Co., is an 'ethical' concern.)

"Is there anything in them at all?"

"Yes, there is," said Mr. Collins earnestly. "There's money in 'em if they're pushed right."

And there you are. Evidently the duplex policy was quite well known even in the day of good old Father Aesop.

COUNTY SOCIETIES

Once more we desire to urge upon the attention of County Societies, two things: First, the importance of developing the scientific side of their work along educational lines; and secondly, publicity. The County Medical Society should be the local post-graduate school. Its courses and its work should be so valuable that no member can afford to stay away, and no physician in the county can afford not to be a member. When this has been accomplished, then let the community know what you are doing. Let it be known that your Society is a post-graduate school of medicine, and not merely an organization of men who get together once every two or three months and talk about fee bills, or each other's shortcomings. Expelling a member for doing Lodge work or any other old thing will have no effect unless membership in your Society means something, and unless your Society is doing valuable work and the community know it, they will not consider membership as of any value. Furthermore, how can a physician keep up to date without getting the ideas of others and without constant work and study? Yet after a hard day's work it takes phenomenal courage for one man to study by himself. Association in work is the keynote of the successful County Society, and that means the successful physician, for peace is almost synonymous with prosperity.

SCHEME BEAUTIFUL

One of the San Francisco papers recently published a scheme for the medical care of the unfortunate citizens who are still living in tent colonies in that city, which certainly must have come from the brain of a genius. Roughly, the plan beautiful was about this: Each camp was to have a general superintendent, at a salary of $250 a month, two stenographers at $60 a month, a few nurses at $75 a month, and an allowance of about $175 a month for postage, car fare and sundries. The nurses, according to the philanthropic plan, should go about making investigations and inspections of certain specified areas, and when they found any sick or feeble persons, they should order the proper diet and secure the services of some nearby reputable physician, whose services would be donated. Lists of these "volunteer" physicians in each district would be made up, so that the official nurses would have no difficulty in securing medical attendance promptly. Let everybody get some compensation—except the doctors! Of course! They do not need money; they do not need food; they are all rich; they are always giving their services anyhow, why not give some more? Probably no class of citizens suffered as severely, in April, as did the professional class, and of these we may safely place physicians first, as over 900 of them lost either their houses or their offices or both. They worked night and day—for nothing and without thought of reward. For weeks and months they gave their time and their labor without money and without price. But is it expected that this shall continue forever and ever? Is the medical pauperization of the city of San Francisco to be complete and permanent? We sincerely trust that the physicians of that city will hesitate before they allow their names to be placed upon these proposed lists of "volunteer" physicians, whose only recompense will be permission to wear out their own shoe leather and consume their own supplies—without thanks.

KEEP UP THE FEES

Just another word or two on the, to the insurance companies, tiresome subject of fees for life insurance examinations. In the first place, remember that our agitation out here is making history. Some of the insurance companies are referring, rather contemptuously, to the fact that "California and one or two southern states are the only ones in the Union where the cut in fees has not been accepted" in abject silence. Presumably, also, with gratitude that the companies are so generous as to pay the examining physician anything. They are howling "about coercion," and "trades union" methods, and the iniquity of requiring that all members of a county medical society shall be required to live up to a certain fee schedule. They also talk about the sacrifice of independence, etc., etc. Do not let many words and high sounding adjectives disturb your natural equanimity. When it comes down to brass tacks, the insurance company must admit that $5.00 is a small enough minimum fee; indeed, many of the companies have already admitted it. Perhaps some of you take the *Medical Examiner and Practitioner,* a publication primarily intended for insurance examiners. This publication preserved a discreet silence, so far as we could observe, on the very important subject of fees, until after the Boston meeting of the American Medical Association. Since then the two issues which we have seen contained a considerable amount of matter referring to fees. In the July number is an editorial so skillfully constructed that it may disturb the reader. It attacks the American Medical Association for taking up the insurance fee question, and (mis) states that the Association has entered into an agreement with the companies to recommend Dr. A. against Dr. B. Don't you believe it. The association is working for the benefit of each and every one of us, and the object of the special committee on insurance which was appointed at Boston, is to secure the readoption of the minimum $5.00 fee. The journal quoted says that it

protests against the Association's trying to force the trades-union idea down the throats of the medical profession. That is all pure buncombe, and the *Examiner* knows it. The Association does not force anything upon the profession, or any portion of it. When the Association does anything, it is because the demand has come up to the association through the county or state organizations. So with this fee question; a number of county and state organizations sent memorials to the House of Delegates at the Boston meeting, asking the Association to take some action; and the Association acted most conservatively by appointing a committee to confer with the insurance companies and try to adjust the matter. It is the county societies that are agitating the question, and it is eminently right that they should do so. Who ever said that the fundamental idea of the trades-union was wrong? Who is forcing organization upon the medical profession? It is not being forced at all; medical men are coming to their senses and realizing that co-operation is better than conflict, that is all. Stick to your demands for a minimum fee of $5.00, and do not make any examinations for a less fee; you will win out, if you will have a little patience.

ASTONISHING STATEMENTS

The JOURNAL has received the following most astonishing clipping from the *American Journal of Clinical Medicine:*

> "We note that many California physicians are booked to leave that state and settle elsewhere; and the appeal is made in their behalf for the minimizing of difficulties, such as State Board examinations. Very good. Even though we might have some plaint as to the difficulties thrown in the way of reputable practicians who, driven from other states by the illness of members of their families, sought to support them by practice and were unmercifully turned down by California, whose Board frankly admitted that it sought rather to protect its own physicians against competition than the people against incompetents. In times of such calamity we forget our grievances and only think of our brethren's dire needs—hoping they may take the lesson home and be merciful in turn."

Will some kind person please wake us up? Who made any appeal on behalf of the physicians of this state, to other states, asking that laws be ignored and that boards of examiners violate their oaths? Did any such appeal come from the medical profession as represented by the State Society? Did it come from our Board of Examiners? Did it come from or through any individual authorized in any way to speak for the medical profession of this state? True, individuals there may have been who left the state and made this request; but individuals have been known to ask for the moon under the misapprehension that it was a lovely chunk of green cheese. Furthermore, when did our Board of Examiners, or any member of it, ever make the most remarkable statement that "It sought rather to protect its own physicians against competition than the people against incompetents." If such a thing were true, it would demand the immediate retirement of the members of the board, or the repeal of the law. To print such an unqualifiedly untrue paragraph is doing our board of examiners and the physicians of our state, the rankest sort of injustice, and an apology is certainly in order.

TO COUNTY SECRETARIES

The secretary of the State Society desires the JOURNAL to extend to each and every County Society secretary, his thanks, in advance, for their united assistance in reassembling the records of the State Society. It will be a difficult task, and it will throw more work upon the shoulders of the County Society Secretaries—gentlemen whose earnest work for the medical profession is seldom recognized. One of the State Association Journals prints at the head of the section devoted to the doings of component societies, the phrase—"as the secretary, so is the society." And it is quite true. Fortunately, pretty nearly all of our County Secretaries are good, live, energetic men, taking a deep interest in their societies and doing good, though too often gratuitous and thankless work. It is indeed unfortunate that more work should be placed upon their shoulders, but it cannot be helped. For a long time to come, questions of identity will arise. "Is this the same Dr. Smith who used to be in San Francisco?" "Is this the Dr. Jones who was reported to have moved to Los Angeles?" "Does this Dr. Brown, who is reported as living in San Diego, hold membership in Placer County Society?" These, and hundreds of similar questions will constantly arise, and with all our original records gone, there is no way of answering most of them without going to the County Secretary for help and enlightenment. Some of these queries may seem very foolish to you, because you do not understand just why they are asked, nor what it means to have every memorandum and scrap of record which you possessed, wiped out. So, gentlemen and friends all, the Secretary will ask you please to answer any letters which he may write you as speedily as possible, and with patience. Even if some of his queries seem stupid to you, bear with his stupidity, answer his question, and earn his undying gratitude. As soon as our supplies and office furniture are received, record cards will be sent out, and each County Society Secretary is urged to exert his personal influence with the members of his Society to get them to fill out the cards and return them as promptly as possible.

AMUSING SITUATION

Some months ago, when the legislatures of several states were in session and when they were, most of them, struggling with "patent medicine" bills which simply required, "Let the label tell," the subsidized press of the land was in a terrible state of mind. In "subsidized press" we wish to specifically include most of the drug journals (with the notable exception of the

high class *Druggists' Circular*, of New York) and a very large number of the little "medical" (?) journals. It was preposterous to think, said they, that any legislature would pass a law requiring the amount of alcohol or narcotic drug contained in the nostrum to be stated on the label! The so-called formula bills were merely traps devised by the American Medical Association to steal the secret of the high-minded, honest and intellectual nostrum manufacturer. The Proprietary Association of America is said to have spent untold sums in fighting these bills and in extending its subsidization process. It sent circulars to publications of all sorts and kinds all over the country, "roasting" the American Medical Association, the medical profession in general, and reformers in particular. And then, lo and behold! the Congress of the United States passed a bill at least as good as any which had been introduced into any state legislature, and secures for the whole country the desired blessing, "Let the label tell!" Was ever anything quite so funny? The subsidized journals hardly yet know what to say. *N. A. R. D. Notes*, the organ representative of the purely commercial side of the drug business, a publication which used to think "Peruna" a really valuable medicine, even before the maker put enough of something into it to take it out of the simple "booze" class, merely prints the bill and tells pharmacists that its provisions do not apply to preparations put up by themselves and not intended for interstate traffic! The "medical" (?) journals have not yet received their instructions, and so are silent. The drug journals, most of them, merely print the law, in whole or in part, and let it go at that. What can they say? What is there to say? They cannot very well attack the entire Congress, individually and collectively. To be sure, they can and do continue to try and stir up trouble for the American Medical Association, but their efforts in that direction are only adding strength to the Association. It is truly an excruciatingly funny situation.

AN INVITING OPPORTUNITY

To the San Francisco County Medical Society is presented the opportunity to distinguish itself in the history of our state. The rebuilding of the beautiful city by the Golden Gate will present problems in sanitation almost without number, and the activities of a good live committee of the County Society might well be expended, in an advisory capacity, to the mayor and the board of supervisors. Indeed, such a committee would not have to wait for actual building operations, for in the administration of the refugee camps, in the direction of future activity on the part of the relief corporation, in officially and publicly calling attention to reported present abuses and insanitary conditions, there lies much work. We understand that the County Society is managed by a Board of Directors, and surely it would not be a hard task for such a body of energetic physicians to divide itself into proper committees, take up the various phases of the problems presented, report to the general board, and then issue, formally and officially, its pronouncements. Unquestionably, the local papers would be glad to co-operate in such an undertaking and give publicity to the official statements of the Society. No medical organization in our country has a better opportunity to secure to itself recognition at the hands of its citizens, or to establish for itself that place in the affairs of municipalities which our medical societies should hold. The JOURNAL sincerely trusts that the San Francisco County Medical Society may be heard from in this connection, and that its work may bring great credit upon our professional brethren in the stricken city.

TOO BAD

When Amos Squash sees that in the local *Argus* which displeases him mightily, he shows his displeasure with the editor in a most cruel and unkind fashion; he stops his subscription to the paper. To his mind, such a dire calamity should immediately be followed by the bankruptcy and cessation of the paper, or else a change in editorial policy to meet his views. The editor is supposed to writhe in painful despair, and to crawl upon his knees in self-abnegation. But does he? So far as we can learn, this much-to-be-desired result is rather rare. As a rule the offending publication continues silently to live; sometimes it takes jocose cognizance of Mr. Squash's withdrawal of patronage. A kind friend, "back East," wrote to the JOURNAL some time ago, calling our attention to an editorial attack upon the American Medical Association which was reported to have appeared in a publication known as the *"Medical Record."* Now, for those who do not know about it, we will state that the *"Record"* is a weekly publication issued for the purpose of making money for its owner, and incidentally intended for the perusal of medical men. Editorially, it does not know that it publishes such things as advertising pages, but actually it makes money by printing the advertisements of a choice collection of nostrums. Latterly, it seems to have fallen into the ranks of the nasty little journals, and has been saying many foolish things about the American Medical Association. Presumably, this is because the work of the Association makes it increasingly difficult for the *Record* to continue the policy of editorial ignorance of advertised nostrums, and because it is showing to intelligent medical men the real inwardness of many of the nostrum frauds so generally advertised in medical (?) journals. The *Record* was one of our exchanges, and before that time even, it was sent gratuitously to the secretary of the State Society. We emphasize the *was*, because when search was made through the accumulated journals for the particular number of the *Record* desired, it was found that there were on hand no copies of that estimable publication. We were making up our mailing list, so we wrote to the *Record* asking whether it desired to continue the exchange of publications with your JOURNAL. To our polite query came the heart-breaking reply which follows:

"We have your letter of July 9th, inquiring about exchange copy of the *Medical Record*. In

explanation of the circumstance we would state that the journal was removed from our exchange list in February last, because of the remarks, both editorial and in your last letter, regarding the *Medical Record.* Regretting," etc. Isn't that too bad! What shall we do? Shall the JOURNAL stop publication? Shall the society wind up its affairs and go out of business? At first we feared that we should have to do so, but later we took courage. One member of the Publication Committee said that he stopped taking the *Record* some time ago, because of the character—or rather, lack of character—of the advertising matter which it had the audacity to send to its subscribers. So we took heart once more and decided to try existence, even without that great and good friend of the nostrum advertiser, the *Medical Record.*

THE INDICATIONS FOR AND A DESCRIPTION OF THE MASTOID OPERATION.*

By HILL HASTINGS, M. D., Los Angeles.

In the beginning I would like to venture the opinion that the mortality from suppurative mastoiditis is as much if not more dependent on good judgment as to the proper time to operate as on the technic of the special operative procedure. Granted that operative interference during the course of middle ear suppuration with mastoiditis shall be permitted in every case before involvment of the dura or sigmoid sinus, it is not unreasonable to expect that the terrors of a mastoid operation will disappear. As the dura and the sinus are protected by the hard inner bony table of the mastoid we should see very few cases where dangerous complications had already arisen before operation.

The questions concerned in mastoiditis are in some respects comparable to those that have arisen in the past in the study of appendicitis. It is said that it was the fashion to be operated on for appendicitis, that it is now the fashion to be operated on for gall bladder trouble, and again that fashion is now turning to the mastoid operation. The same scoffer used to joke about the "epidemic" of appendicitis cases, and now about the "epidemic" of gall bladder cases, and is even now beginning to joke about the "epidemic" of mastoid cases. The great body of the medical profession has been stimulated in these waves of interest. Keener diagnosis and quicker appreciation of the indications for operative interference in these surgical affections have resulted, and are, as we know, responsible for the so-called "epidemic" of cases and the large number of operations performed.

While great credit belongs to the few men who have been pioneers in certain surgical fields, the large amount of good comes from the rank and file of the medical profession upon whose judgment and diagnostic ability the decrease in the mortality depends. Quick diagnosis and keen appreciation of the indications for operative measures are then the safeguards. How many patients with appendicitis would voluntarily request operation, until too late? How many patients with mastoiditis would voluntarily seek operation until signs of superficial abcess, or deeper and more serious symptoms arose?

Unfortunately the cardinal signs of pus formation, known to the laity, are heat, redness, swelling and pain. Wait for these signs to appear before urging operative interference and the mortality from mastoiditis can never be much reduced beyond that already obtained, however skillful the operator may be. What then are the indications for operation that are of practical value in the saving of life? Certain facts, though well known, must first be recalled. First: The antrum from which mastoid involvment occurs is deep down in the process, from a half to one inch. We then cannot examine the inflamed area, as we can, for instance, an inflamed gall bladder or appendix. Second: An external outlet through the mastoid is prevented by an outer table of hard bone which must be necrosed, softened and perforated before superficial abcess formation results. Third: Before this has occurred it is the rule, and not the exception (except in very young children) that the thinner inner bony table, which is closer to the pus infected area, has been eroded, with resulting purulent inflammation of the dura mater, of the brain, and of the lateral sinus.

What then are the indications for operation? (1) Pain? No, for the severest pain comes from acute congestion of the mastoid cells during an acute middle ear suppuration. This severe pain may quickly subside on securing good drainage through the drum membrane. Ilustrative case:

> Miss B., age 28; history as follows: One day ago severe pains in both ears followed a cold in the head. The patient was found in bed with a temperature of 100 deg., pulse 100, hysterical, suffering much with ear-ache. No sleep on the previous night. Has had two similar attacks.. The last attack two years ago in New York City. On both occasions consulted an aurist who incised the ear drum. Examination shows intense inflammation of both drum membranes, bulging and redness. A blood blister on the right membrane The left one ruptured during the night. Slight discharge. Severe pain radiating to both mastoids. Hypersensitive to pressure over both mastoids.. Treatment, free incision of both drum membranes. Copious sero-sanguineous discharge for two or three days. Temperature and pains rapidly subsided. Middle ear inflammation entirely passed off inside of two weeks.

Such cases are reported at times in a wrong spirit, namely, by some hypercritical men who argue that an aurist would have operated on a patient with a similar history.

(2) Fever? No. It may be altogether absent, and in fact, as a rule, is very slight except in children.

(3) Edema? Redness? No. These are the signs of external perforation of a mastoid abscess and not of mastoiditis in itself. In a series of 447 cases I was able to observe in only 100 any mastoid swelling, and of these but 16 were adults. Pain, fever and edema may thus be excluded in the sense of being timely indications for operative interference. However, when these symptoms occur early

*Read at the Thirty-sixth Semi-annual Meeting of the Southern California Medical Society, Arrowhead, California, May 3d, 1906.

and persist, they are of course of great value, largely because the suffering patient more readily permits operation.

Are there, then, no plain indications upon which we can rely for conservative judgment? Most assuredly. Permit me to cite a case and for the sole reason that it is typical and not at all exceptional.

Dr. C. K., age 63, sought treatment March 14th, '06, on account of acute ear trouble following a cold in the head. Onset of the earache six days ago, membrane ruptured two days later; discharge since and at first serous, now purulent. Deafness since the onset; hissing and rushing noises. Left ear not affected. Says he has noticed a very little mastoid tenderness of late, but no pain. The temperature during the first day or two, not above 102 deg. Absolutely normal in the past four or five days. Never any previous ear trouble.

Examination. Temperature 98 deg., pulse 80. Muco purulent discharge (examination of which showed the infection to be streptococci and diplococci). Drums bulging, red; sagging of the postero-superior canal wall. Mastoid shows some tip tenderness; no redness or edema; hearing greatly reduced; watch, negative even on contact; heart, lungs and urine are normal.

March 15th. No change; tip tenderness persists; sleep troubled; no acute symptoms; temperature normal. March 16th. No change; temperature 99 deg.; tip tenderness persists; slight antrum tenderness on deep pressure. March 17th. No change; discharge continues; tenderness persists; temperature 99 deg.; no redness, edema or acute symptoms; mastoid operation advised.

Operation showed rather general involvement of the mastoid, superficial cells full of pus and granulation tissue. Deeper cells contained fluid pus. The tip cells broken down into one large cavity containing pus. Subsequent history uneventful.

Here, then, we have the plain indications, no one of which in itself is serious or of paramount importance. It is only that this syndrome of symptoms and signs taken together so accords with the experience found in the great majority of cases of mastoiditis that we may safely urge operative interference. Further delay in such cases is not conservative, and is fraught with great danger, while prompt operation will prevent many dangerous complications, decrease the number of sufferers from chronic otorrhea and be the means of saving many lives. These indications for operation are such as are recognized at present by an overwhelming majority of otologists the world over. That their importance as life saving indications has not been fully impressed upon the profession in general may be due to the self-isolation of eye and ear men whose clinical reports and discussions have been rather limited to societies not attended by the general practitioner.

To recapitulate briefly, the indications for mastoid operation are:

First—A history of sudden onset of earache often severe and usually following a cold in the head.

Second—Deafness. (Usually, watch not heard on contact.) Noises in the ear, throbbing, beating or machinery-like in character.

Third—The signs of violent middle ear inflammation; viz., an inflamed bulging drum membrane with sagging of the adjacent postero-superior canal wall, accompanied by a purulent discharge that persists and grows more profuse instead of decreasing after rupture or paracentesis.

Fourth—Persistent mastoid tenderness that shows no sign of abatement after three to seven days. This, it should be remembered, is not usually severe and may be only moderate. It may only be elicited on deep pressure.

These signs and symptoms indicate a mastoid operation. The length of time one may safely postpone operation in the hope of securing resolution is, of course, dependent on individual cases and personal judgment. If the pus in the middle ear is evidently pent up from lack of an early paracentesis or spontaneous perforation, it is fairly safe to postpone operation for twenty-four to forty-eight hours after free paracentesis, in the hope of giving vent thereby to retained purulent secretion.

The writer is aware that there are many exceptions, patients presenting these indications, that finally recover without operation. On the other hand, there are just as many exceptions where stronger indications are waited for—cases that subsequently, on operation, show dangerous involvement of the sinus or dura, many of which patients die. Furthermore, it is human nature to pleasantly remember cases that recover without operation and to forget unpleasant ones where death results. Often the lame excuse is given to ourselves, and sometimes to the families, that "the patient would have died anyway, as the brain was exposed and diseased." If we censure ourselves more in such cases for our own almost criminal neglect in postponing operation, we would hear less of so-called "conservatism" and far more of sane conservative mastoid surgery.

The Mastoid Operation.—The technic of the mastoid operation is important, for on its thoroughness depends the safety of the patient and the rapidity of the recovery. A few of the most important points are worthy of description in this paper.

First—As to the incision. This should be parallel to, and one-quarter of an inch behind, the post-auricular fold, beginning on the mastoid tip. The incision should go through to the bone, except above where it is best to bear lightly with the knife down to the temporal fascia, in order not to cut through the temporal muscle. The latter precaution saves much annoying hemorrhage, subsequent tenderness and infection. The bleeding vessels need not be caught until the periosteum is elevated.

This is the second step. A hoe-shaped, heavy periosteal elevator is then used to elevate the anterior flap, including the periosteum, forcing the auricle forward until the bony meatus is sufficiently exposed to locate accurately the suprameatal triangle. The posterior flap is similarly shoved backwards. If there is much thickened tissue a straight incision should be made from the center of the curvilinear backward and the posterior flap, thus bisected, elevated above and below.

Third—All bleeding vessels are caught, the field well dried and the bared mastoid process carefully examined. Too much haste in chiseling into the

bone without thorough examination has resulted in opening the lateral sinus and causing great embarrassment if not actually preventing a thorough operation. The writer has seen the sinus so superficial as to show blue through an outward lamella of bone as thin as a visiting card; also a large fistula leading to the dura. Occasionally a bony depression is seen posteriorly which may be mistaken for the super-meatal triangle—a mistake that would lead to a chiseling down on the knee of the lateral sinus instead of into the antrum.

Fourth—The outer surface having been carefully inspected, the muscular attachment of the sterno-cleido-mastoid muscle to the tip should be severed by a transverse cut with knife or scissors. One point here should be noticed in freeing the tip of muscular attachment, namely, that the facial nerve in infants emerges from the mastoid very superficially and may be severed before opening the bone. This accident has been reported.

Fifth—The mastoid is then entered by a gouge over the super-meatal triangle and grooved down to the tip close to the bony canal. This opens the superficial cortical cells, which may be broken down into a fairly large cavity. With a probe the interior is examined sufficiently to determine the amount of overhanging cortical bone. The outer bony table of the mastoid is further removed, including the tip, before an attempt is made to open the antrum. To directly bore with a curette down in the direction of the antrum is to invite disaster. The antrum may be small and the middle cranial fossa entered, or again a far-forward lateral sinus entered. It is far safer to remove the outer shell of the mastoid and the tip, and gradually groove a boat-shaped cavity until the level of the antrum is reached. A probe can then be entered under guide of the eye and no needless risk taken of breaking through the thin upper wall of the antrum. The remainder of the cellular structure of the mastoid is removed down to the hard bony groove of the sigmoid sinus and to the hard inner table of bone protecting the brain above. This can be done with complete safety. It is vastly important that the assistant keep the field dry by continuous sponging with dry gauze, so that at no time need the operator be working in the dark. The use of a currette in a small pool of blood is dangerous, it matters not how skilled the operator may be nor how good an anatomist. It has been my observation that our leading authorities do not take the careless chances open to many of us, but insist on seeing just what must be done.

The use of a probe should be frequent. It is by no means necessary to piddle in the work, but make every step count. Herein lies the value of special instruments and experience in their use. The importance of making a complete ablation of the mastoid cells is evident when one sees cells full of pus opened far back in the process that would not have been touched by a less thorough cleaning out of the mastoid. Such remaining pus cells are a source of danger, and at least serve to delay the healing; a bone sinus from one of these untouched cells may persist for months.

Another point that should be made is the thorough cleaning out of the antrum and the enlargement of the aditus, its opening into the tympanic cavity. This is most important because, as we should remember, our object in doing a mastoid operation is not only to eradicate the diseased condition of the mastoid, but also so to drain the middle ear through the aditus that the middle ear inflammation may subside. The reason why a certain number of acute middle ear suppurations become chronic is that good drainage through the drum membrane is not, as a rule, possible.

Sixth—After a complete ablation of the mastoid cells, the next step is a thorough cleansing of the cavity with dry sponges. Here it is well to raise another point, namely, as to the irrigation of the cavity before packing—a procedure sometimes done as a matter of routine on the theory that it disinfects the bone cavity the better. Personally, I think that such irrigation is worse than useless. In the first place, I doubt whether such irrigation destroys any infection, and in the second place, any infected material is spread by the irrigation all over the bony cavity. When we remember that likely thousands of bony canals are open on the surface of the inner bony shell, it is reasonable to see how reinfection of an otherwise healthy area might result from the irrigation. Instead, the cavity should be dried and packed with iodoform gauze. Two sutures at the upper angle of the wound should be taken and the posterior straight incision when made should be closed entirely, and the dressing completed as usual.

MEDICAL LICENSURE.*

By S. D. VAN METER, M. D., Denver, Colo.

The history of legislation relative to statutes regulating the practice of medicine is most interesting, and a paper on medical licensure is incomplete without at least a reference thereto. However, as the time at my disposal is necessarily short, I shall only consider the present status of medical licensure, which naturally means a review of the plans and policies of the licensing boards throughout the country. Especially is it my desire to reveal the weak points in our plans of licensure, and if possible suggest means whereby they may be corrected. Differing from you as I do most radically as to certain features of the law and system now in vogue in your state, to be honest, I must of necessity express myself accordingly. Therefore, to forestall any criticism of being a discourteous guest, permit me to assure you, one and all, of my high regard for the magnificent progress you have made in raising the standard of your licentiates.

Just now a good deal is being said and written about the lack of uniformity of our medical laws, and it cannot be gainsaid that as administered there is just reason for the widespread dissatisfaction upon the part of the profession in regard to this lack of uniformity and the consequent injustice to the elder class of practitioners. Bellicose articles, incrimination, recrimination and the as-

*Read at the Thirty-sixth Annual Meeting of the State Society, April, 1906.

sumption of pharisaical positions, however, will never accomplish anything toward the solution of the problem, or the removal of the unjust barriers placed in the road of older, well qualified and experienced physicians by the well intended, but unnecessary, methods used in many states to test the educational qualifications of applicants for license. Deliberate investigation of the underlying facts and influences, prompted by a desire to secure equity and justice to all concerned, needs be the starting point if success is to crown our efforts.

The first and most natural question to arise in such an investigation is, *"What should be the basis of medical licensure?"* It should not be difficult to answer this question, as it cannot be anything other than *"proof of a standard of educational and moral qualification that will insure the proper medical care of the sick or injured."* The most casual perusal of the statutes of the several states will reveal that such is the intended basis of medical licensure in each and every one. So far we may claim uniformity of our laws, but no farther, inasmuch as the methods of determining such a standard are quite numerous and the number of standards deemed proper is almost coequal with the number of States. Of course the latter statement puts it too strongly, and as long as human minds differ in opinion, technically, absolute uniformity of standard is an impossibility. Two different examining boards operating under the same statute and identically the same rules and regulations may differ sufficiently to cause opposite decisions upon the same examination papers. This variation from the accepted proper standard will continue to exist as long as human minds differ; and is as unavoidable and impossible to eliminate as original sin, but it does not excuse the existence of any wide difference of standards or the unjust and inadequate methods that are being used by examining bodies to test the qualification of applicants for license.

The problem of erecting a proper standard becomes a complex, quadratic equation when we recognize not only the necessity of doing justice to the older practitioner, who through the natural course of practice becomes rusty on technical points, but also of taking into consideration the course of training pursued by the applicant, which we all appreciate has varied in our best schools during the past twenty years. In this a board cannot go farther than to consider that an applicant should have that education which would result from the course of training given at our best schools at the time of his graduation.

Notwithstanding the fact that (after all is said and done) the decision of an applicant's qualification is a matter of opinion of the members of the licensing body to whom he applies, there must be some working plan or system whereby equity and justice may be approached, and bias and prejudice may be excluded. To the uninitiated doubtless the answer seems easy, and the query of what shall be the guide, unnecessary. Examination, of course, would be the supposed indisputable answer. Yes! examination, but of what, on what, and of what nature? How quickly the situation changes from one of simplicity to one of complexity! Investigate our statutes, and we see in every one a section investing our examining boards with the power to examine all applicants who seek medical licensure in their respective states. So prominent and important a provision is this right of examination that the majority of licensing bodies are designated as Examining Boards. Nevertheless it was not the intention of the legislatures to place this right in the hands of boards for any other purpose than to serve them as a means to acquire an adequate knowledge of the educational and moral qualifications of applicants whereby to judge of their fitness to be professional caretakers of the sick or injured. It is true that many statutes specifically provide the nature of the examination to be used, and in many instances prescribe certain prerequisites for application. Such provisions are the result of good intentions, chief of which has been misdirected zeal and effort to raise the standard of medical education from the disgraceful general average we must admit exists. Such specific provisions as to method of examination, etc., it is true are not conducive to laxity or the lowering of the average standard of licentiates; however, they in no way prevent the venally inclined board from circumventing their purpose, while they undoubtedly restrict the discretionary power of boards, and render them clerical instead of quasi judicial bodies —as they should and must be if we are ever to have rational and equitable medical licensure.

These very specific restrictions, and their resulting inequity and inadequacy, are unquestionably responsible for the widespread dissatisfaction in the profession on account of the technical barriers they place in the way of the well established physician seeking state licensure, when from necessity or choice he desires to change his location.

For practical consideration, the methods in use for ascertaining the qualifications of applicants may be summed up as follows:

First—Written examination.

Second—Oral and clinical examination.

Third—Examination and verification of credentials.

Fourth—Combination of the foregoing.

Of these the first named is relied upon in the majority of states, with the prerequisite of a fixed minimum course of preliminary and collegiate training. In many of these States the boards have no other way by which to decide the qualifications of applicants, and they must of necessity measure the qualifications of the man of sixty with the same yardstick as the recent graduate of four and twenty. The inadequacy and injustice of such a method for all classes at once becomes apparent, and it is no wonder we have so much agitation for the recognition of state licenses, or what its advocates are boosting as a panacea for the shortcomings of the present regime under the name of *"Reciprocity."* It is not difficult to explain why the majority of states have adopted the universal written examination as their method of testing the qualification of

applicants; nor do we have to search long to discover the reason for insisting upon prerequisites for admission to examination in the form of certificates and diplomas of preliminary and collegiate training. The farcical and inefficient results of medical licensure under the old regime, when boards were required to license applicants upon the mere presentation of a diploma from a legally chartered school, was so pronounced that it is no wonder the pendulum swung so far away from the recognition of documentary evidence in determining the qualification of applicants for license.

Furthermore, the results achieved by examining boards in adopting minimum schedules of preliminary and collegiate training as prerequisites to examination have been wonderful in their salutory effect upon our leading schools, to say nothing of the number of commercial diploma mills whose *requiem aeternam dona eis, Domine,* has been sung thereby.

However, it does not follow that because good, yes even great good, comes of a measure, that it is without fault, or the selfsame good may not be accomplished by other means in which an admitted fault of the original measure does not obtain. This I believe to be true in this instance, because it is difficult to understand why duly authenticated credentials, such as properly verified documentary evidence of preliminary and collegiate education, licensure of other states and countries, and records of hospital, government and private practice, should not be used in determining the qualifications of applicants, especially of those who are not fresh from college.

No statute, however, should attempt to provide for any set of credentials which would make it mandatory upon the board to grant a license thereon, unless they were in each individual case sufficient to convince the members thereof that the applicant possessed the educational and moral qualifications equivalent to the standard they deemed proper. Further, when a board has been unable to honestly decide upon the qualifications of an applicant by investigation of his credentials, they should always have the right to conduct any manner of examination calculated to determine educational and moral qualifications. Such examination must of necessity be written, oral or clinical, and too great stress cannot be laid upon the character of each. They should be practical, free from catch questions, and calculated to determine what the applicant really knows, rather than what he does not know, inasmuch as there is so much of which the best of us are ignorant. Were that made the criterion we should all fall by the wayside.

We must again measure the efficiency of the examination by that of the examiner, which raises the vital question of the importance of selecting good timber for our examining boards.

The impropriety of attempting to determine the qualification of the man of fifty by propounding the same written questions as would be eminently proper for the recent graduate should certainly be manifest to any one, yet that condition of affairs must arise in every state board examination where the universal written examination is in use. Investigate the records of states which require a written examination of all applicants, irrespective of age or experience, and you will find that the majority of their licentiates are recent graduates. Conditions are not favorable or inviting for the experienced, perhaps expert in his specialty, to enter such states, and while the licentiates may have passed high grades in technical knowledge, the general average of the licentiates is low as compared with a state where equitable provisions are made for the licensure of the experienced man. To secure a satisfactory educational test for the recent graduate is comparatively an easy problem, as nothing short of an examination equivalent to that of a graduation examination of our best schools should be used. However, in this class of applicants, which in my opinion are in reality the most difficult to pass upon intelligently, the practical should not be eclipsed by the theoretical, and the branches of the third and fourth years should make up the major part of the test. Those of the first and second years should be less technical, as they are to the recent graduate, in a measure, what all branches are to the older man. The plan practiced in other countries of allowing students to take, at the end of their second year, a State Board examination upon the branches of the first and second years, is a most admirable one, and could be adopted in this country to good advantage.

Examination by the oral and clinical method has much to commend it, permitting as it does personal contact of applicant and examiner, which enables the latter to form a much more intelligent conclusion upon the former's qualifications. After all, the question of an applicant's passing or failing—be our conclusions derived from the grading of papers, oral or clinical examinations, or the scrutiny and review of credentials, amounts to whether or not we consider him properly qualified to be a safe and reliable caretaker of the sick.

The time required to conduct oral and clinical examinations is objectionable, but does not justify their disuse. As it is impossible to preserve any record thereof, they do not serve in case a refused applicant attempts to give a board trouble by mandamus, or like proceedings. Therefore, it is well never to refuse an applicant for lack of educational qualification until he has made a written record of such deficiency; but this fact does not necessitate the assumption that it is necessary or advisable to resort to a written examination in each and every case. I believe the most rational general plan of determining the qualifications of applicants, and one that will permit a perfectly equitable administration of our medical laws, is that of making the licensing bodies the responsible judges of their licentiates; placing no restriction whatever as to the method or means whereby they may derive their information of the qualifications, educational and moral, of those who seek licensure within their jurisdiction.

The good that has been accomplished by the re-

fusal of licensing bodies to admit to examination those applicants whose preliminary and collegiate training has not been equivalent to a minimum schedule approved and accepted by such bodies, has already been mentioned. It may seem a distinction without a difference to say that it would have accomplished just as much good in elevating medical education had the boards incorporated in their rules and regulations the same schedule of minimum educational requirements as being conclusive in the majority of cases that applicants having pursued an inferior course of training would be considered unqualified. In the application of any principle we should look carefully ahead, and if possible avoid any concomitant effect. What have been the other results of insisting upon prerequisites to examination for medical licensure? Nothing, did we have to reckon with members of the medical profession only. Unfortunately we have to consider the position in which it places us when prosecuting cases of violation of these statutes. The possibility that an occasional applicant might become qualified by a course of study taken in a college not living up to the adopted requirements, offers a foundation for a plea of monopoly pleasing to the average jury, and often encouraged by our courts, who frequently, notwithstanding the great knowledge they arrogate to themselves, are decidedly short on matters medical. Furthermore, no other provision in our medical laws has been so much to blame for that ridiculous condition of separate boards for different medical sects. Coupled with the further unnecessary provision of examination upon materia medica and therapeutics it has been most effective in keeping medical sectarianism alive; and to-day, when the educated physician body has so many phases of charlatanry to deal with, it is well to consider most carefully such points. At this time New Jersey and New York are compelled to put forth no little energy to prevent the enactment of a law regulating osteopathy. What would they lose by granting the privilege of these pseudo scientists to apply for license and take the board examination if they wish to assume the offices of a physician? Nothing! But it would at once sweep from under these latter-day disciples of Cagliostro every vestige of the footing upon which they stand in asking for an act ostensibly to regulate a system of poor massage, but in reality designed to create an easy door to the legal practice of medicine. It matters not how specious be their plea, it sounds very plausible to legislators. I have heard it so often, methinks I could close my eyes and hear the reverberations of those words as spoken by the oleaginous tongues of their lobbyists. Their story runneth thus: "Why, we are thoroughly qualified to practice the healing art—are ready to stand the most rigid test, but according to the laws of the state we are not even permitted to apply for examination unless we take a course of instruction in medicine in which we do not believe." Gentlemen, I have lost more than one hour of needed slumber seeking a neutralizer for this unctious hypocrisy, and it is with great pleasure I can from experience say that the removal of all prerequisites to application for license is more disconcerting to a host of osteopathic lobbyists than a regiment of Japanese soldiers would recently have been to a lone Russian scout.

We should not lose sight of the fact that the fundamental purpose of medical licensure is to protect the public health against incompetency. If we spend all our time and effort in the attempt to accomplish this by examination and investigation of those who have honestly tried to equip themselves, neglecting to prosecute the irregular and the quack, or perhaps by well intended, but ill-advised policies, drive them from our control, we may be able to boast that all our licentiates are well qualified practitioners, but the people are in no way protected, inasmuch as the quacks may outnumber our licentiates, and be at liberty to ply their nefarious trade without restraint. That such conditions exist in some states cannot be disputed, and it is not surprising to see in such communities apathy upon the part of the respectable profession in matters pertaining to medical licensure.

Independent of the question of what is, or may be, the proper provision relative to methods of determining the qualifications of applicants in statutes regulating the practice of medicine, the matter of the personnel of our boards administering them is of the most vital importance. The best law cannot accomplish much if poorly administered; and unless we have boards whose members are well chosen as to their qualifications, there will exist a weak link in the chain which will not stand the tension of successful operation. The unavoidable association with gubernatorial appointment, with or without society nomination, is unfortunate; but the profession are woefully derelict in not using their organized effort to secure well qualified appointees—men who have studied the subject—men of judicial minds—men who appreciate the responsibilities they assume and who will devote the necessary time to the routine discharge of their duties. Too frequently we find boards whose members accept their appointments solely for the introduction it gives them, or the little honor that holding state office may bring—often poorly qualified themselves educationally—knowing little, and caring less, how they discharge their duties in protecting the public against incompetency and dishonesty.

The mental ruminations of some of the older applicants, whose education in both the art and science of medicine is that which only years of experience and practice can bring, must be both mortifying and ludicrous when confronted with a list of questions propounded by an examiner, questions not of the examiner's own making, but hastily culled from a quiz compend, in no way calculated to aid in determining the qualifications of the applicant, and which the examiner could not answer had he not looked them up at the time.

The profession are too prone to blame the inefficiency of board members on their political appointment, and while it is a burning shame that politics should play any role in the selection of

medical examining boards, we should not be so pessimistic as not to expect concerted and opportune action upon the part of the profession to influence the incumbent of the executive chair of any state. Personally I do not believe there is a governor in the country who would not welcome the assistance of the medical profession when making these appointments, especially if approached with an evident desire to secure competency, irrespective of personal likes and dislikes.

Boards should, in choosing their executive officer, be guided by the special ability of the member chosen. Too frequently we find this important position, either on account of the smallness of the salary, or from failure of the appointee to succeed at anything else, falling to a man of the least ability.

Viewing the present condition of medical licensure throughout the United States from an unbiased position, it is natural to conclude that great advances have been made in recent years; that the profession through the licensing bodies should be given the credit therefor, but *pari passu* with these great advances mistakes have been made, and we should be willing to acknowledge and rectify them as rapidly as possible. I have referred to several, but the one in particular I sincerely hope to see corrected is the lack of provision made in judging the qualifications of older practitioners. The solution is simple. Give the licensing bodies the right to decide if possible the qualifications of this class of applicants by investigation and verification of their credentials, and those clamoring for reciprocity will have all they want, and that without the retaliatory provision of refusing to recognize evidence of legal practice in another state when that state refuses to accept a similar record from the state wherein license is sought. Further, remove all barriers of prerequisites to application, so as to gain control of all would-be medical sects that seem to be constantly springing up. Consider well the present—add more requirements of this nature—make them as strong as conditions justify, but embody them in your rules and regulations,, where they will serve just as well in winnowing the chaff from the wheat, and not cause the trouble they do when used as prerequisites to application.

Especially is it well to consider preliminary education. This above all else is the most important in making the competent doctor. The mind untrained, upon matriculation, is wholly unprepared to receive a medical education, and it matters not what the course of instruction or the opportunity for observation be, it is like sowing seed in barren ground.

It may not be so soon, but I hope to see the day when no institution in this country will be allowed to confer the decree of doctor of medicine on a less course than a combined baccalaureate and medical curriculum, consisting of six or seven years, the last of which shall be spent in practical hospital work. The commercial medical colleges, and their total disregard for entrance qualifications, are responsible for nine-tenths of the quacks that infest this country.

Enact and enforce statutes in every state controlling medical education, independent of medical license laws, and the top root of charlatanry will be severed. In time we will emerge from the present unsatisfactory condition in matters medical, which must be admitted, if we consider the present number of unprincipled and unqualified medical practitioners who exist by preying upon sick and suffering humanity. Let us bury petty jealousies as to superiority of board procedure; endeavor to handle the older practitioner with equity and due consideration; and keep a close watch on the institutions that are not equipped to give the proper course of instruction, or disregard matriculation requirements.

However, because such colleges are responsible for so much that is bad in the medical profession, let us not forget that there are many medical institutions of high degree, the recognition of which acts for double good, as it discourages the stream of matriculants from entering the poor and guides them to the good institutions. Above all let us save our best energy to deal with the quack—the apostacy of the profession—the disgrace to and odium of every true physician. In alluding to these human vampires I cannot help thinking of the soliloquy of a certain Southern editor when searching for a word to describe his conception of a sympathizer for a rape fiend. In part he said: "I have just discovered the shameful exility of the English language, its poverty of expression, its inadequacy as a mental exchange medium, its utter inability to describe what it were a crime to leave uncatalogued. We have a great many vitriolic words, sesquitedalian words, even what the Germans are wont to call 'thunder words,' but none of them, either singly or in combination, can by the grace of inflection or poetic license be made to answer my purpose. I must have a word woven on a warp of shame and woof of infamy by some foul Duessa plying her loom among the damned—a word that will signify a featherless two-legged animal who is neither man nor ape; who is a criminal and not confined; a lazar and not compelled to cry "unclean," who is a suppurating sore on the body social—a creature so foul that were Doll Tearsheet his mother, Falstaff his father and Perdition his birthplace he would shame his shameless dam, disgrace his graceless sire and dishonor his honorless country. I have explored the English tongue from a, b, c to x, y, z, examined the terminology of reptalia, attended political conventions, and even heard Sam Jones preach, but find no word, printed or otherwise, in the vernacular of the polite or the patois of the vulgar, which covers the case."

Warfare against charlatanry cannot be waged too strenuously; and while we cannot expect by any sudden effort to exterminate its votaries, we can by requiring an adequate preliminary education as a passport, guard the entrance door to the profession. Further, by refusing license to gradu-

ates whose alma maters have failed properly to prepare them for their professional work—by social ostracism of those who practice the satanic principles of charlatanry under cover, and for a time at least are shrewd enough to live within our camps,— by being on the alert to revoke the license of every violator of our medical statutes, with the aid of Father Time, from whose court there is no appeal, we shall be able to rid our noble profession of the majority of these unnamable members.

To improve the efficiency of the work of examining boards, nothing could be done that would promise so much as the creation of some central representative body qualified to offer suggestions, the result of mature thought and deliberation, relative to the administration of our statutes. Such a body of men I believe we have in the Council on Education of the A. M. A., and I am sure that the state boards in general would welcome the assistance of their counsel, if they would be willing to act in such capacity. Access to the Council records of the work being done by the different examining boards and medical institutions would be invaluable to every board in the land. The House of Delegates could not appropriate money to a better end than to furnish the Council a traveling inspector of boards and colleges. Even now it would be an excellent idea for every board to refuse to consider an application until they had a report from the Directory Department of the A. M. A., and if the secretaries of every state would keep a surveillance book in which the records of suspicious, or known to be dishonorable characters, were entered, and monthly report thereof made to the Council, a clearing house, as it were, would soon be established that would serve the cause of equitable medical licensure so well that it would become indispensable. The Council could also issue certificates of qualification to those they know, by credentials or after examination, to be duly qualified.

No state should refuse to accept such certificates, when properly authenticated, as sufficient evidence of qualification to grant license thereon without further technical examination. The fees derived from such certificates would assist the Council greatly in the prosecution of its duties, and while these certificates would confer no legal right, they would carry sufficient influence to make a demand for them.

In conclusion, permit me to urge the issue of medical licenses upon one basis, viz. — that standard of educational and moral qualification which will insure the proper medical and surgical care of suffering humanity. Do not attempt to determine such qualification by any one method—use all rational means practicable—do justice to all—favor none—work hard for the appointment of good timber on examining boards—and keep all batteries in action against the quacks.

THE RECOGNITION OF AFFECTIONS OF THE UPPER AIR PASSAGES IN SCHOOL CHILDREN.*

By EMIL MAYER, M. D., New York.

We have been accustomed, as physicians, to mention those who come under our professional observation as belonging to one of three great classes.

1st. Those who have symptoms which betoken an illness of some sort, who detail their every symptom and hope that we may be able to give our verdicts in their favor, or that no serious condition at least may be present.

2nd. Those who magnify their symptoms, or attempt to deceive us deliberately in order that they may be the gainers in reaping the reward that a sick-benefit association may bestow, or may enable them to secure a large sum in suits for damage.

3rd. Those who deliberately hide their symptoms, deny all previous illness, and resort to every subterfuge in order that they may be considered in perfect health for life insurance, civil service positions and the like.

The first of these constitute the greater part of the physician's work, and it is here that his skill as a diagnostician, his tact in dealing with the many vexing questions of policy, his gentleness of ministration, the assurance he may be able to give, and the absorbing interest, far greater than the public generally suppose, costing him countless hours of anxiety arise, and by his manner of dealing is his reputation enhanced and he becomes, happily often, the conqueror of dread disease.

To this classification a fourth must be added, which is the one in which you are interested, the examination of school children. With neither symptoms nor history to guide you, no desire to appear well or ill, a supreme indifference, with limited time at your disposal, you have to pronounce on the physical signs as to the need of medical care.

How much more difficult a diagnosis becomes without the statement of symptoms is readily apparent, and I may say here that, in my own experience, your diagnoses have been rarely controverted, and it is but just and proper to congratulate you on the careful and thorough manner in which your work was performed. Those of us who are associated with the public clinics have long been accustomed to the cards sent out by the Health Department bearing the diagnosis of the conditions you found, and, in every instance seen by myself, the parent was perfectly willing to permit of such treatment as became necessary to relieve the existing conditions.

The citizens of the commonwealth look upon your work with hearty approval. Your very preciseness, makes my task the more difficult in that much I have to say will be old and trite to you, and yet, if here and there a suggestion may be thrown out to aid you in your arduous labors, I shall feel abundantly repaid for the task you have assigned to me.

External Inspection.—The trained observer will note by the springing step, the bright eye, the ruddy

* An address, read by invitation, before the Medical Inspectors of Public Schools of New York City, February 6th, 1906.

countenance and the poise of the head, the absence of any acute condition, while on the other hand the slow, draggy walk, the lack-lustre of the eye, the pallor of the countenance, or a feverish flush, the drooping of the head and body, will make him seek some febrile disturbance, some acute infection.

The vacant look, the lids distended, the lower jaw dropped, with or without secretion pouring through the nose, the thick enunciation with all the M's turned into B's and N's to D's indicate nasal obstruction either anterior or posterior.

External deformity of the nose, a depression, or bending to right or left means special investigation of that organ. Eruptive conditions about the nose or mouth have their own significance. The visual inspection concluded, the hands rapidly passed about the neck with gentle pressure, the presence or absence of cervical, parotid and submaxillary glands are noted.

Internal Examination.—Before beginning the examination, it will be practical to consider the proceeding from the standpoint of the child. It has a dread of appearing before the doctor, and shows it sometimes by crying and an unwillingness to permit any examination, and here the tact of the examiner will stand him in good stead. If the examination is made without any preliminaries there is apt to be a burst of tears, a struggle, a scene and a loss of temper. If, on the other hand, a little time is taken and some questions as to name, age, etc., be first asked, the child loses its fear, becomes accustomed to its surroundings and allows the examination to proceed without a murmur. This is certainly effective in the majority of cases, and, in my own public work, I have found it rare that I am compelled to use the mouth gag to keep the child's jaws apart while the examination of the throat was made.

Furthermore, there should be nothing in the examination to inflict pain, and I am mindful of the caution of Prof. Pollitzer of Vienna, who constantly taught his pupils that the introduction of the speculum in the ear must not give rise to pain. I myself have taught for many years that it was not at all necessary to introduce the finger in the posterior nares to diagnose adenoids. It hurts, and if you don't believe it, just let somebody try it on yourselves. In an instance occurring in my own practice, a mother came to me asking me to arrange for the removal of adenoid growths in her little girl. On my objecting that I had not seen them, and wished to make my own diagnosis, the mother stated that the little girl was so afraid of doctors that she was sure that I could not examine her, but when I told her I had yet to see the patient that I could not examine, and that I must be satisfied of the need for operation myself, she brought the child. The little one, 4½ years of age, was one of those sweet, dainty little girls that makes those fond of children yearn to love, put her hand confidingly in mine and told me her name and age and residence, and showed me her teeth without any to do. I then asked whether I might look at her teeth with a light and she promptly seated herself in the examination chair. With the aid of a wooden spatula her tongue was depressed so that I might see "what she had for breakfast," her pharanx was readily seen, the light thrown into her anterior nares, her ears inspected with the light and the little silver funnel, the examination was completed and the child was deep in the mysteries of "Illustrated Mother Goose" with my office nurse in another room, while operation details were gone into with the mother, who was simply astounded at the ease of the whole procedure. Will you permit me to digress just a moment while on this subject, to call your attention to a point in regard to subsequent treatment, especially of an operative kind, of those children; it is, the importance of having the child out of hearing when details of operation are discussed or operation is mentioned, leaving the mention thereof entirely to the parents, who know the child so much better than any of us can hope to. The future handling of the case becomes much simplified.

Examination.—The next step is the examination, and here the most important prerequisite is a proper light, with the patient seated directly opposite, and, if possible, a little higher than the examiner. The advantages of direct and reflected light are known to all of you and need no rehearsal here, but it would seem to the writer that the very best light for your purpose would be the direct light from a portable battery, which can be kept in order at a trifling expense.

Nose.—An examination of the anterior nares with the light thrown into the nose will show the presence of abscess or eczema, excoriations or fissures in the alæ, the presence or absence of a discharge from one or both sides of the nose, a tendency to epistaxis. A discharge from both nostrils should awaken suspicion of the possibility of diphtheria. A one-sided discharge from the nose should make you suspect a foreign body in the nose. This latter may readily exist without the parents or the child being aware of its presence. By elevating the tip of the nose the presence or absence of dislocation of the lower portion of the septum may be ascertained, and by the introduction of a spring bivalve speculum, deviations of the cartilaginous septum, tumors of any kind or abscess of the septum may be diagnosed. The latter is almost always a double tumefaction, resists slightly to the touch of a probe and there is a history of some violence immediately preceding. Deviations are recognized by the concavity existing on the opposite side.

Mouth.—Hare lip and palatal deformities are readily noted, while closer observation may be required for small ulcerations on the tongue, lip and cheek, and also for the very thin membranous deposits on the inner surface of the cheek or on the soft palate, which are known as the angina of Vincent. This latter may be positively determined only by having recourse to the microscope. Inflammations about the gums are comparatively frequent, as are those about the tonsils, which latter eventuate in peritonsillar abscess or quinsy. Perhaps the most frequent of all the inflammatory conditions is that known as follicular tonsillitis, where there is a lymph deposit usually situated on both tonsils, filling their crypts, and within the first few days is associated with much febrile disturbance. Some-

times these lymph deposits coalesce and then it becomes impossible to differentiate it clinically from diphtheria. These cases must be labeled suspicious and if at all practical, should be isolated until such time as the reports from cultures taken will disprove the presence of diphtheria. The picture of a diphtheretic throat with its ashen gray membrane, bleeding readily on the slightest manipulation, enlarged glands of the neck and constitutional disturbance, is so well known to you as to need but bare mention.

Another acute condition for which the examiner should be on guard is retro-pharyngeal abscess. The abscence of large tonsils, the pushing forward of the soft palate, the bulging of the posterior walls, and the yielding of the tumor to the touch of the index finger will be of great aid in diagnosis. Caution should be taken against any other than the most gentle touching of the parts for fear of rupture, a sudden gush of pus into the laranyx and strangulation.

An acute edema of the uvulva is not common in children, though quite so in adults. Of the more common chronic conditions we have hypertrophies of the faucial tonsils. In examining this region quiet respiration with the tongue depressed will readily disclose their presence or abscence. It is essential that the examination should be free from gagging on the part of the child, as a moderately hypertrophied tonsil may appear very large by drawing together of the soft palate in the act of gagging. There may be bulging of the posterior pharyngeal wall due to exostosis of the face of the body of the vertebra. Its firm resistance to the touch would differentiate it from an acute swelling.

Naso-Pahrynx.—The condition met most frequently is the presence of adenoid vegetations, and the determination of their presence requires at times a high degree of diagnostic skill. As a result of close observation lasting many years, where the diagnosis of the presence of the adenoid vegetation has been made by myself, subsequently verifying it by operation in thousands of cases, I may say that it has become an axiom with me, that the presence of large follicles on the posterior pharyngeal wall (such as are diagnosed as follicular pharyngitis in the adult) in young children not previously operated upon for adenoids, is absolutely diagnostic of their presence in the vault of the posterior nares. It is because of this sure sign that I do not introduce my fingers into the posterior nares of young children for the sake of diagnosis. It is quite sufficient for me to diagnose their presence, their exact location and amount is determined shortly before operating. I have taught this diagnostic point for many years and I myself have never had it fail me, nor have any of my former pupils recorded any failure on their part.

In my remarks thus far, I have purposely refrained from the question of syphilis in the nose and throat, as it seemed best to speak of this condition separately from the acute and chronic affections that we have thus far considered. The time at my disposal permits of a very brief reference to this condition, however. That the primary sore occurs in young children on the tongue, lips or tonsil cannot be gainsaid; but fortunately it is of rare occurrence in the very young, and the vast number of cases of this affection seen by you will be of hereditary nature and tertiary character. Principal among these we have bone lesions in the nose, causing external deformity and ulcerated processes in the mouth, on the tongue, inner surface of the cheeks and tonsils. Where the lesions exist to a mild degree there is a very strong resemblance to the bacillus of Vincent. The time at your disposal for the closer study and differential diagnosis of these lesions is so short that you are justified in calling them ulcerations, and if syphilis be suspected to add the word specific with an interrogation mark to follow.

Before concluding these desultory remarks, I would like to call your attention briefly to a serious condition that you must meet quite frequently, not down on your diagnostic cards, and yet one that has a lasting influence of a very depressing nature on the unfortunate so afflicted. It requires no diagnostic acumen, and under intelligent treatment is a curable affection. I allude to stammering.

In an article on the neuroses of the upper air passages, I stated that "few maladies to which flesh is heir, cause quite as much unhappiness as does the stammerer's inability to express his thoughts." From time memorial noted men have been thus afflicted, whose nervous dread and sensitive shame froze the current of their speech, they stand impotent of words, travailing with unborn thoughts. Stammering may be defined to be the inco-ordination of three mechanisms of speech, the respiratory, the vocal and the oral. The treatment is that which the laryngologist only can indicate. Careful study has been made of the various causal factors in the affection, notably by Makuen of this country, whose intelligent observations have occasioned much favorable criticism from those who have followed them.

The treatment of these sufferers is either in the hands of charletans or else in those whose charges are prohibitive to the poor, and it is rather remarkable that up to the present time in all of the institutions of this great city, where throat diseases are treated, that no guiding spirit has risen to call attention to the need for such subdivision of their work as would include the treatment of these affections to the poor. It may perhaps be due to the fact that these only present themselves occasionally in the various clinics, and that their number is not sufficient to warrant the outlay necessary for the employment of special teachers who may be required to give instruction under the direction of the physician. With the broad and liberal spirit shown by the citizens of this community, I have no doubt that a free clinic would promptly be arranged, provided a sufficient number of worthy applicants were at hand. It is also a debatable question as to whether the co-operation of the Board of Education might not be secured in attaining this result.

In the meantime, if such cases are referred by you to the laryngologists, the first steps will have been taken toward the relief of this class of unfortunate children.

All reference to acute conditions found at the bedside of ailing children have been purposely omitted, they being beyond the scope of these remarks.

ETIOLOGY OF EMBOLISM.*

By WM. H. FLINT, M. D., Santa Barbara.

Embolism is the transportation of the insoluble substance in the blood or lymph current, and its lodgment in some part of the vascular apparatus, more or less remote from its point of departure. The term is generally applied to this process when observed in the arteries, veins or capillaries, and it is embolism of this kind which is the subject of this evening's discussion.

The substance transported by the blood and lodged in a vessel is called an embolus from the Greek word embolus, signifying a stopper or plug, and it may be either solid, liquid or gaseous.

It is frequently composed of firbin derived from a softened thrombus, but it may consist of any insoluble material which finds its way into the circulating blood. Fat globules, fragments of vegetations, aggregations of blood pigment, parasites, fragments of tumors, the detritus of cells in renal, splenic or hepatic abscess, groups of bacteria, in pyemia and malignant endocarditis, and air or gas bubbles also act as emboli.

An obliterating embolus is one which completely occludes the vessel in which it lodges and is, generally globular in form, although it may be elongated or irregular in shape. A straddling embolus is one which, being caught at the bifurcation of an artery, is propelled into both secondary vessels, more or less completely obstructing them.

Emboli may be further classified as bland and infective.

The former act only mechanically, and do not produce inflammation of the obstructed vessels or of surrounding tissues. The latter (infective emboli), contain pathogenic organisms and produce, besides mechanical effects, various chemical ones, leading to inflammatory and degenerative changes in the vessels of the adjacent tissues. Direct embolism is that variety in which the embolus is transported in the direction of the normal blood current, and is most common. In retrograde embolism, the embolus passes in the direction opposite to the normal blood current, as in tricuspid regurgitation into the venæ cavæ. Paradoxical embolism is the transportation of emboli from the veins into the arterial system, without passing through the pulmonary circulation, as in the case of a patulous foramen ovale.

In direct embolism, the embolus is borne along by the blood current until the channel becomes too narrow to admit of its passage, or until it encounters some insurmountable obstacle to its further progress. In direct embolism, the vessels obstructed are arteries, since they diminish in calibre, as they pass to the periphery, or they are capillaries, if the embolus is microscopic. The one exception to this rule is the portal vein, the centripetal radicles of which are smaller than the parent vessel.

Embolism due to the detachment of parts of a thrombus is primarily due to those processes favoring thrombus-formation, such as endarteritis phlebitis, hypercoagulability of the blood, or notable retardation of the blood current.

Embolism from the entrance of fat globules into the circulation is occasioned by injuries or diseases of bones involving the medulla, as in fractures, amputations, or osteo-myelitis, but it may follow the disintegration of any organ containing fatty tissues, as the breast, the liver or brain. Fat embolism usually occurs in the pulmonary capillaries, but may be found in the vessels of the heart, kidneys, brain and spleen, the emboli, in that case, having been sufficiently diminutive to pass through the capillaries of the lung, on their way to their ultimate destination.

Embolism of the capillaries and of the smaller arteries is also occasioned by the development, in the blood, of the filaria sanguinis hominis, of the plasmodium malariæ and of the bilharzia hematobia. Embryonic trichinæ, amebæ and various bacteria may produce embolism of the liver capillaries.

Air embolism is usually caused by the entrance of air into the large venous trunks of the neck through wounds, or during operations on the neck, face or chest, but the air may enter the circulation through the uterine venous radicles, in abortion or placenta previa, after the separation of the placenta, or may find its way through veins opened by ulceration of the stomach or of the intestines.

Caisson disease is supposed, by some authorities, to be occasioned by emboli composed of free nitrogen liberated in the blood and carried into the capillaries of various vital organs, when the workmen pass, too suddenly, from the condensed air of the caisson into the comparatively rarified atmosphere of the outer world.

Gaseous embolism may also be caused by infection with gas-producing bacteria, as the bacillus ærogenes capsulatus.

Pigment embolism occurs in malarial fever, lending to pernicious types of that disease their characteristic features, and it is a possible complication of melanotic neoplasms of the liver and of other organs.

Retrograde embolism may occur in the vena cavæ, the hepatic veins, or in those of the upper extremities and of the head, as the result of tricuspid regurgitation caused by dilatation of the right ventricle and auricle. Retrograde embolism has also been reported in the hepatic, mesenteric, pulmonary, renal and coronary veins, as well as in the cerebral sinuses.

The cause of paradoxical embolism is the postnatal patulousness of the foramen ovale and of the ductus Botalli, which permits the passage of emboli from the right ventricle directly to the left ventricle, or to the aorta. These emboli may be derived from thrombi in the right auricle, the venæ cavæ, or elsewhere, and, having passed into the aorta, may find lodgment in any part of the peripheral arterial or capillary systems.

*Part of symposium read before the Santa Barbara County Medical Society.

DIET AND HYDROTHERAPY IN THE TREATMENT OF RHEUMATISM AND GOUTY CONDITIONS.*

By ROBERT CREES, M. D., Paso Robles.

Diet and hydrotherapy are familiar subjects in the treatment of rheumatism and gout, and are usually resorted to when medicinal means fail. Uncertainty of etiology and difficulty in differential diagnosis has developed a tendency to treat both disorders along the same line; hence we find the same dietary restrictions applied to both diseases. The hyprotherapeutic measures used in these cases, are much the same at all health resorts, with the exception of what differences there may be in the composition of the different mineral spring waters. The value of the present dietetic method is held to lie in withholding from the food certain nitrogenous products that are said to increase the formation of uric acid.

The hydrotherapeutic measures are aimed at eliminating from the system the accumulation of uric acid considered to be the cause of the symptoms. It may justly be contended that the medical fraternity do not hold that uric acid retention is the cause of all these complaints, but a long practical experience at a health resort has demonstrated that there are practitioners who still hold these views, and that the idea is a prevalent one among the laity.

For the purpose of this paper it matters not what theories are held regarding the causation of these complaints; and I am convinced that until we have a clearer conception of their etiology we can meet all dietetic and hydrotherapeutic indications by considering the physical condition of the patient, and regulating the treatment accordingly, equally as well as in adhering to rules suggested by a theory which may or may not be correct.

In plethoric, gouty, cases it has been my practice to reduce the quantity of food ingested, rather than restrict the nitrogenous products, and the results obtained have been satisfactory. Whether this method would be efficacious in patients treated by medicinal means at home, I am not in position to say, as this assertion is based on the observation of only those cases that were undergoing the hot springs treatment at the time they were thus dieting. On the other hand, in cases, whether of rheumatism or gout, where the patients have suffered a considerable loss in bodily weight, they were placed on a liberal mixed diet. The hydrotherapeutic treatment of rheumatism and gout is of even more importance than the dietetic, and if carried out with due regard for its dangers as well as its benefits, will prove productive of much benefit.

The methods used at the various health resorts, consist in drinking certain spring waters and in giving hot saline, sulphur, and mud baths. No satisfactory explanation has as yet been given to account for the virtues which mineral spring waters are said to possess, as waters widely varying in composition have equally beneficial effects. In the main they act as diuretics and laxatives. If there are any specific alterative properties in the mineral ingredients it has not yet been fully demonstrated.

The hot baths, whether they be the saline, the sulphur or the mud, are highly lauded in the treatment of these complaints. If we analyze their action we find that they stimulate the secretory apparatus of the skin, cause a dilitation of the peripheral vessels and a consequent lowering of blood pressure. From this it would appear that the principal virtue of mineral springs treatment is that of elimination. The dangers attending this form of treatment are, irritation of the kidneys, due to drinking large quantities of water heavily charged with mineral ingredients, disturbance of digestion from drinking these waters at unseasonable hours, and the debilitating influence of excessive hot bathing. For these reasons the indiscriminate hot bathing and drinking of mineral waters, now a common practice at health resorts, should be discouraged. In applying dietetic and hydrotherapeutic measures to cases of rheumatism and gout, consideration must be had for the condition of the patient's nutrition. If his vitality be low the bodily functions are below par, and an attempt at elimination by a system of hot bathing, unless great care be exercised, would only further lower vitality, and thus defeat the object of the treatment: whereas, in the vigorous, well-nourished patient, the process of elimination by hot baths and reduced diet may be continued to some length with benefit, but that it may be carried too far, the following case would tend to show:

March 7th; Mr. S., age 50 years; merchant. This patient has had a number of attacks of articular gout, the first, eight years ago, a typical outbreak, confined to the big toe joint, since which they have occurred yearly or oftener. The present attack began four months ago and involved a number of joints. After trying medicinal treatment a short time without effect, he visited several of the health resorts of this state, where he was subjected to the usual eliminative treatment, consisting of hot saline, sulphur, and mud baths, and blanket sweats; he had during the period of three months 50 such treatments, while at the same time he was on a restricted diet. When I first saw him, both feet, ankles, knees, and one wrist, were swollen, temperature was normal, heart sounds clear, arterial tension low, and his weight 35 pounds below normal. Considering this a case of debility from excessive bathing and too little food, a full mixed diet was ordered, and a daily tonic bath prescribed. By this, I mean the application of water to the surface of the body in the form of douches under specified pressure and temperature; its effects are tonic rather than depressing. The patient was put into a hot air cabinet and kept there until he began to perspire, he was then removed to the circular douche, where water is played on the trunk in fine streams at a pressure of 20 pounds, the temperature of the water being 95 deg. F., gradually reduced to 90 deg. during a period of one minute, after which he was sprayed with water from the nozzle of a hose, delivered at a pressure of 20 pounds, the stream being made fan shape through the manipulation of the attendant; the temperature of this was 85 deg. reduced to 80 deg., during a period of 30 seconds; this is known as a fan douche. The temperature of this douche is gradually lowered from day to day as may be required. In this case 75 deg. was the minimum temperature reached. A five-minute friction and

*Read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

slapping of the surface to aid reaction completed the treatment. This treatment was given daily during the first week, and the improvement in both general health and the articular symptoms was quite marked. He gained four pounds in weight. During the second week, two hot sulphur baths followed by massage, and four tonic baths were given; continuous improvement in the joint symptoms was noted, and the patient gained three pounds during this week. The third week's treatment was a repetition of the second, the patient gaining three pounds in a week, a total of ten pounds in the three weeks. The joint swelling had nearly all disappeared and he was able to get about without the aid of either crutches or cane.

Cases such as this, where the vitality has been greatly depressed by an excessive hot bath treatment, are much more frequently seen at health resorts than would be supposed. The reason for it is the prevailing popular idea that rheumatic and gouty conditions are only cured by a process of sweating. Hence, patients seeking these resorts for treatment, and without the advice of a physician, are very prone to carry it too far. This is particularly noticeable in patients whose vitality was low when commencing treatment. From this I contend that the most rational method to adopt in treating rheumatic and gouty patients at health resorts, is to regulate both diet and bathing, from the standpoint of physical condition rather than that of the theoretical considerations of etiology.

CASE OF DOUBLE SENILE CATARACT WITH SPONTANEOUS POSTERIOR DISPLACEMENT OF BOTH LENSES.*

By P. A. JORDAN, M. D., San Jose.

I wish to report the following case because of its comparative infrequent occurrence.

M. K., age 87; male; formerly policeman; confined to bed for the past four years with senile dementia. Has lain on his back most of the time; able to sit, stand, and take nourishment.

Patient was first seen by the writer two years ago, March, '04, in company with Dr. G. W. Fowler. Double senile cataract was readily diagnosed. The pupil of each eye plainly disclosed the pearly white cataract. The patient had light perception, and possible projection, though his demented condition forbade obtaining subjective tests. He could not see better than shadows. Extraction was considered, but his physical condition would not allow it. His white cataracts were plainly visible to the nurse, who three times a day brought him his food, and his blindness was also self evident.

One morning, three months later when the nurse approached, the patient exclaimed, "I can see you." And on testing, it was found he could differentiate people, objects and colors. The pupils no longer disclosed white cataracts, but had the normal black appearance. Closer inspection revealed the lenses hanging backward in the vitreous. The zonula of Zinn had given way and gravity had favored backward dislocation.

In January, '06, atropine one per cent was instilled three times a day for seven days. No dilation followed. Iris was tremulous. The lenses up to time of death four weeks ago, were one-third their original size, and could be seen to flap up and down in the vitreous on motion of the eyes. An autopsy could not be obtained.

Remember our new address, 2210 Jackson Street, San Francisco.

*To have been read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

PROPRIETARY MEDICINES.

SOME GENERAL CONSIDERATIONS.*

By GEORGE H. SIMMONS, M. D., Chicago.

PROPRIETARY MEDICINES.

A proprietary medicine is a preparation that is owned or controlled by an individual or individuals. This control is held either by a copyright or trade name, or by a patent. Proprietary preparations controlled by copyright or trade names are generally mixtures, and are often secret or semi-secret in character. It is the name of the article that protects it.

There is no objection to proprietary medicines *per se,* if we are to recognize the commercial rights of those who supply us with medicines. The commercializing of the literature relating to our materia medica, however,—which seems to be necessarily associated with proprietary interests—is against a true scientific spirit and is demoralizing, both to pharmacy and to medicine.

The ideal proprietaries are those that are made so by the manufacturers attaching their own and not a fanciful name to the preparation. For instance, Squibb's ergot is a proprietary preparation, in so far that if a physician prescribe for this preparation he will get Squibb's ergot as surely as he would if it were sold under some fanciful name. So with other articles, whether mixtures or simples, if the maker's name is attached. These are the ideal proprietaries and ought to be encouraged, for this means the encouragement of a high standard of quality.

PATENTED MEDICINES.

Patented medicines are those which are made patent or open; in consideration of the owner making known his methods of manufacture he is protected against infringement of his rights for a certain number of years.

Nearly all patented medicines are chemical compounds "made in Germany"; but, incidentally, it might be said they are not much used in Germany; at least not as much so as in this country. Theoretically, there is no objection to patented medicines; at least, they are not secret, nor is there anything mysterious about them. Practically, they have become almost as much of a nuisance as the nostrums because of their vast and ever-increasing number, and especially because the manufacturers are so extremely anxious to get physicians to prescribe them that they often stretch the truth to the breaking point in the literature describing their value as therapeutic agents.

"PATENT MEDICINES" AND PROPRIETARY MEDICINES.

Proprietary medicines, theoretically at least, may be divided into two classes: those that are sold directly to the public, and those that are put up for and advertised only to the medical profession. The former are called "patent medicines." This is an arbitrary, absurd, and meaningless term, but one that will doubtless continue to be used. The latter, those advertised to physicians, are usually called "proprietaries." But when the Proprietary Association of America, an organization made up principally of "patent medicine" men, discusses the prep-

* Reprinted from the Journal A. M. A.

arations put up by its members, it always calls them "proprietary," and there is no reason why it should not. The fact is, there is no technical difference between "patent medicines" and "proprietary medicines." But it is generally understood that the term "patent medicine" refers to those that are advertised and sold direct to the public; and "proprietary medicines" to those used by physicians. For the time being we are concerned with the latter only.

NOSTRUMS AND ETHICAL PROPRIETARIES.

Every one acknowledges that there are some proprietaries which are fraudulent, or which, for some reason or other, should not be used by physicians. Even those who most bitterly oppose the work undertaken by the Council on Pharmacy and Chemistry acknowledge that there are some proprietaries on the market that are not what they ought to be; in other words, are not "ethical." But what are they, and why are they not "ethical"? Are all of the thousands of proprietaries offered to physicians good and worthy of their patronage? If not, why not?

The fact that we use such terms as "nostrum" and "ethical proprietary" indicates that there are good and bad proprietaries. Would it not relieve the situation if we could agree on some definition of these terms? Had we a general understanding of what we mean when we say a certain medicine is a nostrum, or an ethical proprietary, we would be able to discuss matters relating to this proprietary medicine question with a better understanding than is possible under present circumstances. In fact the whole problem rests on what we mean by these two terms. We know that a nostrum is a medicine that should not be used by a physician, and that an ethical proprietary is supposed to be all right. But why?

Nostrum (*noster*) literally means ownership, and thus should be synonymous with proprietary; and when we get away from this original meaning we begin to flounder among arbitrary definitions. Webster defines nostrum as "a medicine, the ingredients of which are kept secret for the purpose of restricting the profits of sale to the inventor or proprietor, a quack medicine"; Dunglison as "a secret or quack medicine." The term is certainly one of reproach and is meant as a slur on the medicine to which it is applied. And it is easy to understand how this meaning of reproach came when we realize that, even in the early days, any medicine that was controlled for profit by keeping its composition secret was regarded with disapprobation. Of course, secrecy was then necessary to ownership, as it is to-day with simple mixtures. And no matter how much we may labor to give a different meaning now, our forefathers considered any medicine a nostrum whose ownership was controlled by keeping its method of manufacture secret. This definition would be considered too narrow to-day; we must be satisfied if the ingredients and their quantity are given; the details of manufacture may be kept secret. But what proportion of proprietary medicines on the market to-day would escape coming under even this liberal definition of the word nostrum?

And what of ethical proprietaries? Are all medicines whose composition is given, including the amount of each ingredient, "ethical" proprietaries? Then Ayer's Sarsaparilla, and other "patent medicines" which publish their formulas, would be "ethical." And what about those proprietaries that are advertised to cure incurable diseases, and which are exploited under false and extravagant claims with the deliberate intention of misleading physicians? Are these to be classed with "ethical" proprietaries? Is there no standard by which we may judge what are and what are not "ethical proprietary medicines?"

It seems to me there must be some such standard, and I wish to submit the following propositions as a basis for a definition for such preparations:

1. There should be no secrecy or mystery connected with their composition.
2. There should be no secrecy or mystery regarding the firm which makes them or the place where they are made.
3. There should be nothing in the advertising literature concerning their therapeutic value which is untrue or misleading.
4. They should not be advertised, directly or indirectly, to the public.

I believe that no one who has any regard for the rights of physicians, for scientific medicine, or for legitimate pharmacy, will deny the correctness of the principles of the above propositions.

NO SECRECY OR MYSTERY.

1. Whatever is secret or mysterious is suspicious. This is a truism that needs no demonstration. Secrecy and mystery are the bulwarks of quacks and humbugs, and behind secrecy and mystery the "patent medicine" sharpers hide while they swindle the public; and with them the exploiters of nostrums delude and humbug unthinking physicians. Remove the secrecy and mystery connected with these preparations, and physicians who now prescribe some of them would be ashamed to acknowledge that they had ever been so foolish.

A physician not only has the right to know what he is giving his patient, but he has no moral right to prescribe a preparation of which he does not know the exact composition. Incidentally, we are facing a rather peculiar condition; the public is demanding and we are urging that the label on all "patent medicines" shall state the actual composition; and yet some of us are prescribing and so compelling our patients to buy and take preparations about whose composition we ourselves are ignorant. We are rightly demanding that the people shall be told exactly what they are taking when they prescribe for themselves. What will a layman say when he discovers that his physician is giving him a medicine whose composition his physician does not know? [The members of the Proprietary Association of America are fully alive to this weakness of the medical profession, as is shown in the editorials appearing in various newspapers throughout the country, which are obviously dictated by the press committee of the "patent medicine" men. The following quotation from the Newburgh Daily News, March 26,

may serve as an example: The article speaks of secret preparations which are sold to physicians only under high-sounding and coined names and which are prescribed by them in utter ignorance of their ingredients: "The name is intentionally puzzling and the drug may be composed of morphia, cocain, digitalis, strychnin or any other deadly drug for all the doctor knows: Arsenauro, Neurosine, Phenalgin, Svapnia. Firwein, Celerina, Dioviburnia, Ammonol, Peptenzyme, Borolyptol, Aletris Cordial, Apioline, Peacock's Bromids, Alkalithia, Urceden, Freligh's Tonic. These and many hundreds of others, including a number of coal-tar derivatives under different names, with their deadly heart depressing effects, which have been directly responsible for hundreds of sudden deaths, are blindly prescribed by the physician."]

Another fact should be mentioned, incidentally also, in this connection: The legislation for the protection of the public against frauds in "patent medicines" and foods, provides for the examination of these articles by experts, so that the statements of the manufacturers may be verified. Should there not also be experts to examine medicines offered to physicians and to verify the statements regarding the composition of medicines they use? Evidently not, judging from the vehement protests from certain quarters when the American Medical Association secured for this purpose the services of experts and created the Council on Pharmacy and Chemistry. It should be noted that in all proposed or enacted legislation—national or state—the medicines used by physicians are exempt from its provisions; it is presumed that physicians know enough to take care that the medicines they use are what they ought to be. A sadly mistaken presumption this, judging from the past!

It is claimed that if the owner of a proprietary medicine should divulge the exact ingredients and the amounts of each, his rights would be gone, since others would make it. In reply, let me assure you that there is hardly a nostrum put on the market whose composition cannot be detected by the bright fellows connected with other manufacturing pharmaceutical houses, who, if they desire, can put up practically the same product, and this is actually done pretty generally. But it is true that if the formulas of at least 90 per cent. of the secret, or semi-secret, proprietaries on the market were made public, and if all secrecy and mystery regarding their actual composition were removed, there would be no more call for them by physicians, for there would be revealed to physicians what is known to experts who have looked into the matter, viz: that these wonderful preparations are very ordinary prescriptions which any educated pharmacist can compound. I am referring now to the thousands of articles that are foisted on our profession by what I shall refer to later as pseudo-chemical and pseudo-pharmacal companies; I do not include the so-called "elegant" non-secret pharmaceutical preparations, such as elixirs, syrups, tablets, capsules (especially when containing liquids), bougies, etc., that require more skill, or greater facilities, in their manufacture than is usually found in the ordinary retail drug store. and that are made by pharmaceutical houses which employ skilled and scientific chemists and pharmacists and which have every facility for such work.

A common argument offered by the promoters of secret proprietaries is that they have spent time and money in developing them and, hence, cannot afford to give up their secrets. As regards this, I assert that the only expense attached to the development of ninety-nine out of every hundred of these preparations is that which has gone into bottles, labels, advertising literature, and in wages paid to smooth-tongued detail men to visit and delude the doctors. In this they have undoubtedly spent money—lots of it, and successfully. But aside from this, all the talk about the time and money invested in developing these preparations is the veriest bosh. The capital required to start Antikamnia, a combination alleged to have been suggested by a physician, and which has netted a fortune to its owners, was simply that which was necessary for advertising. The ingredients were cheap and no skill was required to mix them. Ammonol, we are told, was the result of the suggestion of a physician that carbonate of ammonia should be used in the place of caffein to counteract the action of acetanilid on the heart; and Phenalgin, it is alleged, is simply the result of another "company" branching off from the Ammonol Company with practically the same mixture under another name. The amount of time and money required to work out the acetanilid mixture, Sal Codeia-Bell, I leave to your imagination. How much knowledge, time and money do you suppose were necessary to originate Tongaline, Neurilla, Pasavena, Anasarcin, Manola, Sanmetto, Ecthol, Neurosine, Benzol Capsules, and thousands—I am not exaggerating when I say thousands—of analogous preparations? Are these anything more than ordinary simple mixtures of well-known drugs? Do they require more than ordinary pharmaceutical skill to compound them? Are they any better combinations of drugs than the average physician is prescribing every day?

RELIABILITY OF MANUFACTURERS.

2. Next to knowing what is in the combination we are using is the knowing who makes it, whether the manufacturer is competent, reliable and has the necessary equipment. Ordinarily, when we buy an article of commerce, regarding the quality of which we have no confidence in our own judgment, we select a responsible, established firm, one which has a reputation, and we take the firm as a guarantee that the article will be up to the standard and one on which we may rely. Should we not do the same when we select medicines to prescribe for our patients? And yet one of the most noticeable facts connected with the nostrum business is that the vast majority of these preparations are supplied us by firms about which we know little or nothing, and which, for a better name, I designate "pseudo-chemical" or "pseudo-pharmacal" companies—companies which are created solely to exploit this class of medicines. These companies are not in the true sense manufacturing chemists or manufacturing pharmacists, if by these terms we mean that they are in the regular business of manufacturing the various chemical and pharmaceutical preparations. The latter have their catalogues or price-lists, which include

preparations official and non-secret, called for in the regular course of such business. They have more or less complete laboratories and expert chemists and pharmacists. While some of them put out preparations of a secret and more or less doubtful character, this is a side issue with them. Some "pseudo" companies are really connected with regular manufacturing and pharmaceutical houses, through which these houses exploit doubtful preparations, that, for reasons best known to them, they are ashamed to exploit openly. But the nostrum output of all the regular manufacturing pharmaceutical and chemical houses is trifling compared with the vast number that are foisted on our profession by companies that are in no sense regular manufacturing pharmacists.

If we should get behind the scenes we should find that the personnel of most of these "pseudo" companies consists of men who have no interest in, or knowledge of, either medicine or pharmacy. Many are merely promoters who have created a fictitious "company" through which to exploit to our profession some cheap nostrum. Once in a while the "company" will be found to consist of a doctor or a druggist, who sees in this "specialty business" easy money. Ex-advertising agents in several instances form the personnel of such "companies." One "company" that I have in mind consists of a real-estate agent and a lawyer; originally it was a real-estate agent and a druggist, but the lawyer and the real-estate agent put up a job on the druggist and he was squeezed out. The preparation this "chemical company" exploits is made by a regular manufacturing firm, and the "company" does not have to attend to even the labeling or boxing of its preparation. And yet this is a "chemical" company!

Some of our "ethical proprietaries" are furnished us by the same men who, under other names, are supplying the public with "patent medicines." Certain homeopathic pharmacies are running "pseudo" companies as a side line, and exploiting nostrums to the regular profession. And, as I have stated, a few old established pharmaceutical houses and retail druggists, under anonymous names, are doing likewise.

But while there is mystery connected with the personnel of many of these pseudo-companies, there is just as much mystery connected with the place of manufacture. Some of the "companies" have their preparations made for them by regular manufacturing houses just as many "patent medicines" are made. In other instances the "laboratory" is a back room in a business block not far removed from the business office; an ordinary store room on a side street often answers the purpose.

Let me suggest, therefore, that before prescribing a preparation we not only should know what it is, but also who makes it and where it is made. If the name of the manufacturer is not known let us find out something about him. If the "company" or individual is not a legitimate manufacturing concern, but is merely putting up one or two "specialties,"—often a dignified name for nostrums—we should be suspicious. We should be very suspicious if a detail man calls on us representing a "company" which bears the same name as the product he is cajoling us to prescribe for our patients.

I am not making a plea for manufacturing pharmacists, at least so far as claiming that they are what they should be. On the contrary, I am sorry to say that too many of them are putting out "specialties" that are the veriest nostrums. Examination of some of the products of a few of the supposedly reliable houses has shown that our profession has been sadly deceived and humbugged by even such houses. But the number of regular manufacturing firms who have been practicing this deception is probably small, and the total number of nostrums of fraudulent preparations from all these houses is insignificant compared with those that emanate from the "pseudo" concerns.

The nostrum, or secret "specialty," is a side issue with legitimate manufacturing houses, and when they find that our profession is awake, they will stop this dishonorable business. While some of them will dislike to do this—for these "specialties" are very profitable—they will do so rather than have their legitimate business injured by exposure of their illegitimate. But what about those whose business consists entirely in making and exploiting nostrums? Will they give up willingly? Will they stop for fear of exposure? By no means. It is their livelihood. It is too lucrative a proposition to give up without a desperate fight. And as there are some three or four hundred of such concerns in this country, is there any wonder that this movement has met with tremendous opposition, an opposition which, combined, represents millions of dollars!

I want to emphasize this phase of the problem, and to declare as emphatically as I can, that the great bulk of the nostrums are put out by "companies" that are neither chemical or pharmacal, and that these "pseudo" concerns bear the same relation to legitimate pharmacy that the ignorant quack doctor bears to an educated honorable physician. And one is as great a curse to pharmacy and chemistry as the other is to medicine.

Just a word in regard to imported mixtures. There seems to be an impression among many of us that if an article is imported, it must be something good, reliable, "ethical" and above suspicion As a matter of fact, during recent years England, France and Germany—especially the latter two—have been sending mixtures to this country—mixtures that have been made especially for the American market, at least their sale is practically limited to this country—which are on a par with the nostrums of this country. Some of these foreign preparations are foreign in name only. Others are imported in a concentrated form and diluted here, and still others are imported as put up abroad. There are so many disreputable preparations among them, and they are advertised and exploited so often with such utter disregard for truth, that it is well to be suspicious of all. Further, while we are willing to recognize the superiority of the German chemists in certain lines, American pharmacy for a third of a century, has been leading the world—and is leading to-day. It is certainly not necessary to go abroad for our

pharmaceutical mixtures; but if we do, let us be sure that they are at least as good as, if not better than, those made by our own people.

EXAGGERATED STATEMENTS.

3. Of course, every one—including the manufacturer—will agree with the third proposition: that no untruthful claims should be made regarding the therapeutic value of medicinal articles. And yet, what a reflection on the veracity of the manufacturer, and especially on the credulity and tolerance of the physician, is the great bulk of the advertising "literature" furnished by the manufacturers of proprietary medicines. I won't take time to illustrate, by quotations, the correctness of this statement. If any of you would criticise it, look at the "literature" that has come to your office during the past week, or at the advertising pages and "write-ups" in some of our medical journals. It is to our disgrace that we have so long put up with the foolish and extravagant claims and falsehoods of proprietary medicine men.

INDIRECT ADVERTISING TO THE PUBLIC.

4. The fourth proposition is the one to which a certain class of proprietary men most object; but to the physician it is the most important. The Council on Pharmacy and Chemistry incorporated this principle in Rule 4, which is:

Rule 4. No article will be admitted whose label, package or circular accompanying the package contains the names of diseases, in the treatment of which the article is indicated. The therapeutic indications, properties and doses may be stated. (This rule does not apply to literature distributed solely to physicians, to advertising in medical journals, or to vaccines and antitoxines.)

It is a manufacturer's business to sell his wares; it matters little to him who buys them. This is business. The manufacturer of drugs is no exception to this general proposition. Consequently, we cannot blame him if he tries to get the public to buy the wares he puts up—ostensibly "for physicians' use only." But physicians object to the advertising of medicines direct to the public—not for selfish reasons, but because their indiscriminate use by the public is more likely to be injurious than beneficial.

It is not necessary to give the reasons why the indiscriminate use and self-prescribing of medicines containing active or poisonous ingredients is detrimental to public health. Knowing the harmfulness of it, physicians emphatically object to the advertising of such medicines to the public.

Hence, few proprietary medicine manufacturers, who want physicians to use their preparations, do thus advertise. But practically all of them have been advertising indirectly to the public, until now without a protest on our part. This indirect advertising is by circulars accompanying the preparation and by labels on the bottles or containers, as well as by having the name of the preparation blown in the bottle.

Samuel Hopkins Adams charges that physicians are indirectly responsible for a large part of the "patent medicine" taking, and undoubtedly his charge is just. While the catchy name of the nostrum prescribed by the physician is partly to blame, it is the advertising matter which the layman gets with the medicines that does the work. The labels and circulars tell him of the various diseases in which the medicine is indicated. This is the kind of advertising that costs nothing; and, evidently, it is considered "ethical" advertising. But, above all, this is the advertising that pays. The patient has confidence in his doctor; his doctor, the patient reasons, has confidence in this particular medicine, and, therefore, it must be good; and if it is good for the particular trouble for which the doctor prescribed, it must be good for the other diseases indicated—and their name is usually legion—on the label and in the circular. If those of you who are in the habit of prescribing proprietaries will examine a package at your drug store—just as the patient will get it, too often, in spite of your directions to the druggist to remove the label—you will not wonder that so many of the proprietaries that have been on the market for any length of time are bought directly by the public, in much greater quantities than on physicians' prescriptions.

The manufacturer argues that the doctor himself wants to know what a preparation is good for. I reply, the doctor is not supposed to go to a drug store to learn his therapeutics. The manufacturer will see that the physician gets enough literature to keep him informed of the value of his preparation in every disease in which it is possible to use it. It is not usual for labels on official drugs and standard pharmaceuticals to contain the names of diseases in which the article should be used; neither should such indications be permitted on proprietaries. But so long as we tolerate this abuse, just so long will the manufacturers keep it up; and we cannot blame them; it is business. It is a method of exploitation that costs them nothing; they get the doctor not only to prescribe their preparations, but to put their literature in the hands of the public at the same time. And this literature has another and decidedly important effect: it aids and abets the druggists in counter prescribing. Has the time not arrived for us to demand of the manufacturer that he give us a square deal in this matter? Should we not insist that this indirect method of exploitation to the public shall cease?

Let us not blame the manufacturers for this nostrum business. We, and not they, are to blame. We have been allowing ourselves to be deluded without a protest. We have accepted commercialized literature in the form of therapeutic hints without question, and have been prescribing cheap drugs under a fanciful name, for which either we or our patients pay ten times their worth, without so much as a murmur.

The nostrum evil has grown until it is a curse to our profession. The use of proprietaries has become so common that the intelligent prescribing of well-known official drugs in their simpler form by many intelligent practitioners has become a lost art. The literature of the proprietaries has developed in many physicians an optimism and a contented spirit that has checked intelligent thought, independent action, and an ambition to progress. The nostrum business has cast a blight on our literature, debauched our medical journals, checked advance in scientific methods of treatment, and suborned the art of prescrib-

ing to the aggrandizement of commercial promoters.

Can we not rid our profession of at least a part of this blight?

THE NOSTRUM FROM THE VIEWPOINT OF THE PHARMACIST.*

By W. A. PUCKNER, Professor of Chemistry, University of Illinois School of Pharmacy, Chicago.

While the responsibility of the medical teacher for existing conditions will be discussed by another speaker, I can not resist this opportunity offered me, a pharmacist permitted to address physicians, to say that without question the insufficient instruction in materia medica, pharmacology, pharmacy and chemistry offered by schools of medicine is the direct cause of present conditions.

I wish to point out to you how this lack of proper training along the lines indicated has made the physician dependent on ready-made remedies, proprietaries and nostrums, and how this, again, has been the making of "patent medicines," has led to self-medication and to counter prescribing, and has been the cause of making pharmacists forget their professional standing.

As a teacher, I would like to add that not only has the instruction in these subjects been inadequate because of the limited time allotted to them and because the student is led to attach too little importance to them, but often also because of the instructor's lack of familiarity with the subject which he is supposed to teach. This condition is but too frequently brought to my notice by former students who, having graduated in pharmacy, have taken up the study of medicine. As an illustration, I may refer to an article by Dr. Galloway [1] in which he protests against some haphazard, incorrect statements made by teachers in schools of medicine. Dr. Galloway reports statements made in favor of a certain brand of chloroform as opposed to another kind; statements so unfair and unwarranted that they can but be taken to show the lecturer's unfamiliarity with the subject he teaches. Other instances are cited which show that the lecturers, not being sufficiently familiar with the chemistry and pharmacy of medicines, are led to draw on the imagination and to offer to students statements which are entirely at variance with the facts.

Since the newly-graduated physician, therefore, has but a limited acquaintance with the remedies which he must employ, his prescriptions are liable to be unsightly, nauseating or, because of incompatabilities, perhaps inert. As a result of this two consequences are probable: First, if the patient discovers the physician's incompetency, when again in need of treatment he will go to his pharmacist for advice, since the pharmacist at least is familiar with the remedies which are used in the treatment of disease; second, when the physician comes to realize his lack of familiarity with medicines, then he most probably will fall back on the proprietary remedies, ready-made, with the dose on the label, of pleasant odor and taste and said to possess marvelous virtues.

The lack of familiarity with the common remedies often shown by physicians was strikingly brought to my attention recently. I was suffering from an attack of acute indigestion and called a physician; in due time the attendant placed a powder on my tongue and requested me to swallow it. The powder, which I later learned contained magnesium carbonate, at once formed a compact mass, firmly adhering to the tongue, much as plaster-of-Paris would. I asked for a little water and was informed that the physician had prohibited all food and drink, but that I might have a teaspoonful of water on promise not to swallow it. Naturally I removed the concretion still adhering to my tongue and made no further attempt to take the medicine.

Were such physicians but competent to judge the effect of the remedies which they administer the dependence on proprietaries would not be so bad, since most, or at least many, possess some merit. Unfortunately, however, the physician's training is likely to be such that he can not distinguish the rank fraud from the efficacious remedy, honestly made and sold. It is this inability to judge the effect of medicine which has brought about the custom, now almost universal, of outrageously exaggerating the values of these proprietaries. The following will illustrate how a physician often is led to use absolutely worthless remedies: Some years ago a preparation was placed on the market under the name of "Flora China," which was claimed to be "pure quinin sulphate," but to be tasteless and to do all that the bitter quinin would do. In appearance the substance resembled quinin sulphate and it certainly was tasteless, but on examination [2] I found it to be nothing but crystallized calcium sulphate. Yet some five years later a student told me that a certain physician prescribed it and had used no other kind of quinin for years.

In this way a large portion of the medical profession has become dependent on the advertising literature and the detail men of proprietary dealers for the treatment of their patients. They listen to tales of the wonderful virtues of "bracemup" or "stimuline," written probably by a person having no knowledge of medicine whatever, or perhaps compiled from obsolete medical works.

Recently a letter sent by a pharmaceutical house to its salesmen ("detail men") came to my notice. This letter, after stating that a successful salesman must be a student of human nature, etc., went on to say that the educated physician should be approached something like this: "Doctor, I have here a preparation of —— ———; if you employ this drug in your practice you will find that this preparation of the drug, manufactured by reliable and skillful pharmacists, contains the very best quality of the drug and is combined in such a way as to obtain the greatest good from the remedy." Then it went on to say that, as pharmacists, it is the business of the manufacturing pharmacists to put into the hands of physicians drugs of the highest quality, knowing well that physicians will know what use to make of them. The letter continued that, unfortunately, however, there was a great many physicians of inferior education along lines of materia medica and therapeutics with whom such arguments would fail, and who must be told that a certain preparation is good

* Reprinted from the Journal A. M. A.

for a certain kind of cough, that another remedy is a "winner" in the treatment of a certain brand of this or that disease and who like to read glowing testimonials of wonders accomplished. This letter in conclusion suggested that the salesman must judge which of these two methods to adopt in approaching the doctor. That in any case it would do no harm to flatter by assuming that the doctor knew his business, and later to change the mode of attack if they should find that he did not know his business.

Finally, let me illustrate how the use of proprietaries by the physician must cause a lack of confidence on the part of the patient, and induce self-medication, or cause counter-prescribing by the druggist, and be the making of "patent medicines." While practicing pharmacy one day I was asked to prescribe for a man who said that he had contracted gonorrhea. Instead I advised him to consult a physician. Soon after I was summoned to the telephone and asked by a well known surgeon for the name of "those black capsules that come in a flat box." In due time I was requested to fill the prescription, and although the capsules were taken out of their container and placed in an ordinary pill box, yet the patient recognized the familiar remedy at a glance and in no complimentary manner commented on the time and money wasted in consulting the physician.

Imagine the frame of mind of the patient who, having consulted his physician and paid his fee, learns that his prescription calls for orangine or antikamnia, with which the daily press has made him familiar.

What do you suppose he will do when next he has neuralgic pain or any other pain; or if his sister or his brother or his aunt has any kind of pain?

But you say: "We do not prescribe remedies advertised in the lay papers. Yes, but how did Fellow's syrup, or worse still, McMunn's elixir, become a "patent medicine?" Because they were prescribed by physicians, who thus assumed the role of "advance agents." Rest assured that whenever a physician prescribes any of these remedies with nice, smooth, catchy names, no matter how illegible his writing, and even though he does not follow the advice of the promoters to direct that they be dispensed in the original containers, with the "name blown in the bottle," patients will, sooner or later, learn what they are taking. If the remedy has the desired effect and cures this or that trouble, the patient when next indisposed will purchase his medicine direct and dispense with the physician's services. Furthermore, he will recommend it to his friends, using the physician's name as a guarantee of its virtues. Next, its advertisements will be transferred from the medical journals to the daily press and the physician will have officiated at the birth of another so-called "patent medicine."

A practice still more reprehensible, it seems to me, is that of supplying patients with "physicians' samples." Seeing that his physician tries on him remedies about which he plainly knows nothing, it is small wonder if in the future the patient will prefer to consult the "patent-medicine" literature of the daily paper or will study the placards on fence posts and in street cars to find some remedy fitted to cure him, since to him it must seem that his physicians did this when last consulted.

COUNTY SOCIETIES

SHASTA COUNTY.

At the last regular meeting of the Shasta County Medical Society, July 21, 1906, there being present Drs. C. E. Reed, S. T. White, O. J. Lawry, A. B. Gilliland, L. A. Banter, Robert L. Legge, Thomas J. Edgecomb and R. F. Wallace, members, and Drs. Jno. Sandhold of Kennett and A. M. Henderson of Sacramento, visitors, the following business was transacted.

Dr. W. E. Coppedge of Alturas was elected to membership.

Resolution of Dr. C. E. Reed, offered at our January meeting regarding letter of resignation of Dr. C. W. Bryant, viz.:

It was resolved that his resignation be not accepted on account of disrespectful language to our society, and that his name be dropped from the roll of membership of this society because of his continued violations of our laws in accepting contracts and performing contract work for lodges and organizations, the proof of which is contained in his letter of resignation. This was referred to the executive committee for further action, and on the recommendation of said committee, the resolution was adopted and the name of Dr. C. W. Bryant ordered stricken from roll of members of Shasta County Medical Society. On motion, duly seconded, the secretary was instructed to notify the secretary of the Medical Society of the State of California and the secretary of the American Medical Association of the action of our society regarding Dr. Bryant.

In regard to fee for examinations for "old line" life insurance companies, adopted at our meeting of October 21st, 1905, and which was fixed at $5.00 minimum fee, the following resolution was offered and unanimously adopted:

"Resolved, That any special arrangement for increase of fee to $5.00 per examination made between medical examiner and local agent be not accepted by this society; the special arrangement must be made between the medical director of the company and the examiner."

Paper of the day was read by our visiting brother, Dr. A. M. Henderson of Sacramento, Cal., on the subject of "Cholelithiasis," and discussed by all the physicians present.

After refreshments, the society adjourned to meet in regular session in October, 1906.

R. F. WALLACE, Secretary.

VENTURA COUNTY.

The Ventura County Medical Society held its regular meeting on Monday evening, August 6th, at the office of Dr. R. D. Potts, Oxnard. The subject for discussion had been prepared by Dr. Potts, and was entitled, "Diseases of a Non-Infectious Nature." Dr. Potts had evidently given his subject much study, and treated its many phases very exhaustively, relating some interesting cases which had occurred in his own practice.

President Cunnane opened the discussion, and was followed by Vice-President Maulhardt, Dr. Stockwell, Dr. Bynum, Dr. Livingston and Dr. Teubner.

The absence of Dr. Love was noticed, and the opinion freely expressed that the society had lost a most valued member.

Mrs. Potts had prepared a generous and dainty repast for the entertainment of the members. The dinner was greatly relished, and the society gave a vote of thanks to their genial host and hostess, Dr. and Mrs. Potts, for their cordial hospitality.

CHARLES TEUBNER, Secretary.

LOS ANGELES MEDICAL LIBRARY.

Through the generosity of Dr. W. Jarvis Barlow of Los Angeles, the medical profession of Southern California has recently become the recipient of a twenty-five thousand dollar library building, which is now in the course of erection in Los Angeles.

The committee in charge of the library desire to obtain information as to the best mode of raising funds for the maintenance of the library, as well as of methods of cataloguing, management, and so on, and they request copies of reports and of specimens of card index cataloging forms, or any suggestions that would be of aid in the inauguration of this medical library work in Los Angeles. Any help or information would be greatly appreciated. Address, G. H. K., M. D., 506 Bryson Building, Los Angeles, Cal.

DR. J. H. LOVE.

Dr. J. H. Love of Ventura died of cerebral apoplexy on Monday, July 23d, 1906, aged 58 years. Dr. Love was born in Ohio, and had practiced in that State from 1870 to 1890, in which latter year he came to Ventura, California, where he had been in continuous practice up to the time of his death. He was a former president of the Ventura County Medical Society, and a member in good standing at the time of his death. His colleagues in the Ventura County Medical Society held him in high esteem, and his genial presence will be missed hereafter. He was county physician for several terms and physician to the county hospital.

Dr. Love had always taken a strong interest in civic affairs, and at his funeral the public buildings were draped with flags at half-mast in his honor. The officers and members of the Ventura County Medical Society attended the funeral services in a body, acting as pall-bearers to their deceased colleague.

Dr. Love had been a member of the masonic order, and the members of his lodge exemplified the impressive ritual of the order. A widow and three grown sons are left to mourn the loss of husband and father, to whom the sympathy of the Ventura County Medical Society is hereby extended.

In the death of Dr. Love, the medical profession has lost a valued member, and the public in general a worthy citizen.

CHARLES TEUBNER.

NOT MEMBERS OF THE PROPRIETARY ASSOCIATION.

The Cystogan Chemical Company has requested us to state that it has not held membership in the Proprietary Association of America since the spirit of antagonism arose between this association and the American Medical Association.

A PLEASANT MESSAGE FROM NEVADA.

The secretary has received from the committee of the Nevada State Medical Association the following resolutions, which extend to us that appreciation which it is always a pleasure to record:

"Whereas, a great calamity has fallen upon the city of San Francisco; many of the people having not only been driven from their homes but have lost everything, and are compelled to begin life over again, among the chief sufferers being the members of our beloved profession;

"Resolved, that we extend to them our sympathy and tender to them our encouragement and assistance;

"Resolved, that it is with a feeling of pride and satisfaction that we view the splendid courage, heroism and self-sacrifice displayed by the members of the profession in ministering to the needs of the injured and sick;

"Resolved, that a copy of these resolutions be sent to the secretary of the Medical Society of the State of California, to be read at their next convention, and that they also be spread on the minutes of this association.

"M. R. WALKER,
"G. H. THOMA,
"S. K. MORRISON."

BOARD OF EXAMINERS, APRIL SESSION.

Examination April 17th: certificates issued May 8, 1906.

PASSED.

Cooper Med. Coll., S. F., Cal.—1904, 1; 1905, 4.
Coll. of P. & S., S. F., Cal.—1904, 3; 1905, 3.
Hahnemann Med. Coll. of the Pac., Cal.—1905, 1.
University of California, S. F., Cal.—1902, 1; 1905, 2.
Univ. of So. Calif., L. A., Cal.—1905, 3.
American Med. Missionary Coll., Ill.—1904, 1.
Bellevue Hosp. Med. Coll., N. Y.—1867, 1.
Bennett Med. Coll., Ill.—1895, 1; 1901, 1.
Coll. of P. & S., Ill.—1905, 1.
Dartmouth Med. Coll., N. H.—1895, 1.
Detroit Univ., Mich.—1898, 1.
Drake University—1904, 1.
Edinburgh University, Scotland—1905, 1.
Harvard Univ. Med. Coll., Mass.—1894, 1; 1900, 2.
Hering Med. Coll., Ill.—1893, 1.
Illinois Med. Coll., Ill.—1899, 1.
Japanese Med. Coll.—1894, 1.
Kansas Med. Coll., Kans.—1894, 1.
McGill Univ., Canada—1904, 1.
Med. Coll. of Indiana—1903, 1.
Mo. Med. Coll., Mo.—1897, 1.
Northwestern Univ. Med. Coll., Ill.—1904, 1.
Omaha Med. Coll., Nebr.—1895, 1.
Rush Med. Coll., Ill.—1885, 1; 1890, 1; 1893, 1; 1903, 2.
St. Louis Univ. Med. Dept., Mo.—1904, 1.
Trinity Univ., Canada—1899, 1.
Univ. of Iowa—1891, 1.
Univ. of Mich.—1898, 1.
Univ. of Mich. (Homeo.)—1905, 1.
Univ. of Pa.—1895, 1; 1901, 1.

Licentiates of May 8, 1906.

R. E. Austin, M. C. Bamji, I. S. Bancroft, H. G. Barrie, J. E. Beck, C. L. Bigelow, George A. Briggs, W. L. Channell, J. O. Chiapella, J. M. Craig, R. S. Cummings, Arthur Dangerfield, William R. Davidson, M. E. Eastman, J. A. Elmere, J. E. Fahy, Mary L. Fraser, G. H. Galbraith, D. D. Gibson, Mary E. Glover, F. J. Gobar, Thomas J. Gray, D. H. Hornor, H. W. Howard, T. J. Kinnear, George E. Kleeman, Helen Lee, T. C. Light, J. S. Meagher, W. S. Mortensen, F. O. Mosher, L. J. Murphy, H. C. Peterson, Edwin E. Porter, J. E. Pottenger, F. L. Rogers, A. C. Sellery, H. D. Skinner, George A. Smale, G. B. Smith, J. Tanaka, George E. Tucker, Zilda Turner, J. L. Waller, W. E. Wallgren, J. M. Ward, H. E. Warren, H. S. Warren, E. L. Waterman, C. H. Wood, I. S. Zeimer.

NOTICE!

Relief Committee Changes Address.

The Physicians' Relief Committee, which has had its headquarters at the Lane Hospital through the courtesy of the directors of the hospital, will move to the office of Dr. Fred. W. Lux, the secretary, on September 1st. Dr. Lux's address is 2661 Clay St., where he can be found from 1 to 3 P. M.

Remember our new address, 2210 Jackson Street, San Francisco.

California State Journal of Medicine.

Owned and Published Monthly by the

Medical Society of the State of California

PHILIP MILLS JONES, M. D., Secretary and Editor

PUBLICATION COMMITTEE

George H. Evans, M. D. A. B. Grosse, M. D.
W. Francis B. Wakefield, M. D. Harry M. Sherman, M. D.

ADDRESS ALL COMMUNICATIONS

Secretary State Society, - -
State Journal, - - -
Official Register, - - -
2210 Jackson Street, San Francisco.

Telephone, West 5975.

IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten.

Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. IV AUG., 1906. No. 8

EDITORIAL NOTES.

DESTROYED CERTIFICATES

The Board of Medical Examiners meets in San Francisco, August, 25th, and the JOURNAL is advised that action will be taken in the matter of the restoration of certificates to practice medicine in this State is issued prior to April 18th, 1906, and destroyed by the San Francisco fire of that date. We understand that the Secretary, Dr. Chas. L. Tisdale, 1879 Sutter street, San Francisco, will be authorized to issue duplicate certificates upon proper identification and the filing of an affidavit setting forth the manner of the loss of the certificate for which a duplicate is prayed. This action, we understand, was authorized by the special session of the legislature which met in June. All inquiries on this subject should be addressed to the Secretary at the above address, but it should be borne in mind that a very large volume of work must be done by the board, and patience should be exercised by those who apply for new certificates.

FIRE RISKS

It will well repay every physician in the country to study carefully the attitude of the various fire insurance companies toward the losers in the San Francisco disaster of last April. It appears from a careful investigation of the matter that very few members of our profession, in San Francisco, were insured for anything like the full value of their office property, and very many carried no insurance at all except upon their personal effects and homes. Probably $1,000 would be in excess of the average amount of insurance held by physicians on their office fixtures. How far would that sum go in rehabilitating your office, if everything in it was destroyed? Thus, even supposing that you were paid in full the amount of your insurance, your loss would seem to be not inconsiderable. We are all careless about some things. Thousands of insured in San Francisco did not know even the name of the company in which they held insurance, and to almost all the name itself was meaningless, so far as giving an indication of the stability or rectitude of the company, until the day of reckoning came. For this reason, we think, it will pay you well to study carefully the list of companies which we reprint elsewhere in this issue, and to see to it that you have insurance in some of the companies classed in the "dollar for dollar" list. Why should you pay premiums on full value when you may feel confident that, in the event of disaster, you will receive but fifty or seventy-five per cent. of the amount you are entitled to? Why not take the trouble to see that your insurance is placed with a company which has shown, by its treatment of your brothers in San Francisco, that it deals honestly with its policy holders? Just look up your insurance policy and then see if the name of your company is in the "dollar for dollar" list.

UNGRATEFUL SAN FRANCISCO

To one who loves his San Francisco, many things, just now, are rather trying. It hurts to see strictures on our city published here and there about the country, and the hurt is not lessened when they happen to be true. In a recent number of the *St. Louis Medical Review* appeared the following comment, which, in the main, is sadly true:

> "San Francisco appears to be making but a poor return, if we are rightly informed, for the practical sympathy that flowed towards it from all sides in the hour of its calamity. Immediately on the shock of the disaster, the members of the medical profession promptly threw their skill and labor into the common treasury of work for the public good. That was only what was to be expected of every man, each after his kind. But later, when the instant peril was over and the onward march was planning for the resuscitation of the community, the laborer and the scavenger and the clerk and all other toilers in the essential needs of life are being reimbursed for their labors, the members of the medical profession alone—most hard hit perhaps of any class—are refused any share in the general relief if our information is correct."

A specific example of gross injustice may be noted in the case of one physician who, like so many of his confreres, gave up his time to relief work immediately upon the coming of the disaster of April. He was hurrying upon some errand of mercy in one of the automobiles commandered by the Army, when the axle bent. A nearby blacksmith was called upon, and in an hour or two he

succeeded, with the aid of three helpers, in setting right the trouble. He refused to accept an order from the Army in payment, and demanded cash. The physician in question paid the sum demanded, $5.00, a modest charge—and is still out of pocket that $5.00. Not only did this doctor work days and weeks for nothing, but he had the pleasure of paying out some of his hard earned and not too plentiful money, for doing so. And very numerous instances of a like sort could be mentioned. Political grafters, helpers, scavengers, watchmen, etc., can be paid; a private institution can borrow $20,000, but the physician cannot even get back what he has paid out of his own pocket!

REMEMBER THE REASON

In bygone years, when we were all sleeping the hypnotic sleep induced by the nostrum's detail man, and the truth was not known to us, there were a number of medical journals regarded with considerable esteem as being representative of the best in the medical profession. Little attention was paid to their advertising pages, for participation in graft through advertising had not been generally recognized. Some, if not most, of these journals were owned by gentlemen of acutely commercial minds, and they derived large revenues from their publications—or rather from the advertising pages of their publications. That the *Medical Record* once held a high place in the confidence of medical men, can not be doubted; that it has earned a great deal of money for its owner, is most probable. But an awakening came. The American Medical Association was roused and it began to look into the "Great American Fraud" as perpetrated upon the medical profession. It began to tell the real inwardness of some of the nostrums foisted upon medical men and advertised in medical journals previously regarded as respectable, and to call attention to the fact that journals which advertise such things and derive a good part of their revenue from them, are really participating in graft. This was annoying. The commercially minded owner has his view point fixed upon the dollars, not ethics, and he dislikes the idea of cutting off any of these readily paid, but possibly dirty dollars. The statements about fake medicines and rank nostrums published by the *Journal A. M. A.*, being true, could not well be denied. Nor could the logic of its fight for right (with the origination of which we may have had some small part) be upset; argument was useless. So what could the journal, desirious of holding on to all its revenues, nostrum-tainted or otherwise, do? Obviously, human nature being what it is, the proper thing to do was to get mad and attack the organization responsible for telling these objectionable truths and try to stir up trouble for it. This was only to be expected of a large number of journals, but truth to tell, it came as a surprise to see the *Medical Record* joining the ranks of the disgruntled "published-for-profit" journals and openly attacking the American Medical Association. There never was a time when the Association was more harmonious, when dissensions were fewer, when the rank and file of the membership was more solidly appreciative of the good work being done for the whole profession by its Association. Just bear in mind the real reason for the distorted attacks upon the Association, and when you read of dissensions and threatened rupture, just close one eye; they are all—well, let us say—fiction.

[N. B. In one number of the *Record* containing an editorial "roast" of the Association, appeared the following advertisements: Antikamnia, Gray's tonic, Scott's emulsion, antiphlogistine, resinol, ergoapiol (Smith), sal hepatica, Dios Chemical Co., seng, cactina, chionia, anasarcin (formerly advertised as a cure for dropsy) and our old friend "fig syrup"—which is innocent of the festive fig. But the editor of the *Record* is officially ignorant of the fact that it publishes advertising pages, so we will have to open the other eye, and excuse him.]

MERELY A SPECIALTY

When will we fully grasp the fact that dentistry is really but a specialty in medicine; that it is just as much an integral part of medical science as orthopedics, and that it should carry with its special practice a thorough knowledge of medicine? All this is forcibly called to mind by a paper read before the Section on Stomatology, at the last meeting of the American Medical Association, by Dr. Eugene S. Talbot. "Rigg's disease," or "pyorrhea alveolaris," or as it has now come to be called, interstitial gingivitis, has made very many of us uncomfortable; we know but too well what are its local manifestations. Yet only within the past ten years has it occurred to any one that this very general and very painful affliction had a systemic rather than a purely local origin. Talbot has done a great deal of careful work on this subject for ten or twelve years past, and his contention that the irritation of the tissues surrounding the roots of the teeth is merely an expression of a deranged metabolism and an autointoxication, can hardly be upset. For some time we heard much of the "uric acid diathesis," etc., and it was well known that many cases of interstitial gingivitis could be relieved by administration of the salicylates; yet little profit was derived from this knowledge. Such men as Talbot and Carlton, persistently showing to their fellows in dentistry the close relationship between that specialty and medicine, will do much to educate us all to a proper realization of the fact that dentistry should be taught as a branch of medicine and not as a separate art. All nutritive processes begin in the mouth, and to consider any process of nutrition or metabolism without taking the mouth into consideration, would be absurd. It would seem to be almost equally absurd to consider the mouth and its contained teeth as being entirely separate from the rest of the system, and yet that is exactly what has been done and is being done and will be done, so long as the teaching of dentistry remains a separate industry.

GERMAN HOSPITAL

On another page we take pleasure in presenting to the readers of THE JOURNAL a very interesting letter from a member of the staff of the German Hospital, who resented some remarks which appeared in a recent issue. It will be seen from this letter that, while the general contention that the German Benevolent Society is an open contract practice institution is not disputed, it would appear that our previous informant had somewhat distorted the actual state of the domestic affairs of this institution. That the German General Benevolent Society has, in past years, done an enormous amount of most praiseworthy charitable work, cannot be gainsaid. That in more recent years many abuses have crept into that institution and that it has very justly been criticized for them, is, we think, equally patent. We are very glad to learn that "hospital patients" are now to be classed and treated as the private patients of the proper member of the attending staff, paying him for his professional services just as any other patient would; this is a long step in the right direction. There remains the reproach that any person, rich or poor, German or not, may become a "subscribing" member of the Society, and as such demand medical or surgical attention for the membership fee of $1.00 per month. This is not right and cannot be defended in practice. It is therefore with much pleasure that we learn from the communication of our esteemed colleague of the German Hospital, that the energies of the staff are being devoted to an attempt to curb this abuse. Let members of the Society who are able to do so, pay their physician or surgeon just as would any one else. To contemplate the spectacle of a rich man receiving considerable professional attention for the grotesque sum of $1.00 per month, is not elevating nor inspiring, and we wish the staff every success in their efforts to put a stop to it. Probably, as our correspondent suggests, there will always be contract practice in some form; but let us, at least, strive without end to keep it within reasonable bounds and let it be but one form of that charity which physicians are so lavish in giving.

THE VIAVI REMEDIES

San Francisco is liable to secure still more fame, or at least attention, through two of her "prominent citizens." The most excellent agitation of the nostrum mess, or "patent medicine" business—the "Great American Fraud"—by *Collier's Weekly* is enlightening the public in many ways, and more and more pronounced is the demand for truthful information about these nasty frauds. "Viavi" has come in for mention, and doubtless when the new pure food law goes into effect, it will receive still more interested attention from the administrators of that valuable measure. It may not be generally known to our readers that the "Viavi" business is owned by two "distinguished" citizens of San Francisco—Herbert Law and his brother, "Dr." Hartland Law. For those who are interested in the investigation of frauds we would sugest a few lines of inquiry. Do any of the "viavi" remedies contain morphine? Is it true, as has been rumored, that a considerable portion of the 'viavi" instruction deals with the science, art and practice of preventing conception—or eliminating the early product? Is it necessary that there shall be any metal connected with the brick in the transaction of selling a "gold brick"? It may also be interesting to our members, especially our San Francisco members, to knew that the Fairmont Hotel has become the office of the "viavi" concern. We wonder will this convenient location be retained after the hotel is open for guests. Certainly, it would be a most excellent advertisement—of our "prominent citizens" and their honest business—and it would also be so convenient for the poor, suffering women who desire instruction in the science, art and practice, etc.

TUBERCULOSIS DEPARTMENT

The JOURNAL is advised that a department has been opened at the City and County Hospital, San Francisco, for the care of hopeful cases of pulmonary tuberculosis, and that it is ready to receive favorable male patients. The department of public health, we are informed, has for some time had in contemplation the creation of this tuberculosis section. The news that their plans have finally been perfected and that the work of rescue has actually been undertaken, is certainly encouraging, for it marks the first definite effort to fight tuberculosis which has ever been attempted in San Francisco. This is particularly significant when we realize that this city possesses the rather unenviable reputation of having probably the largest mortality from tuberculosis of any large city in the country. During 1905 the mortality reached 22.35 per 10,000 inhabitants, estimating the population to have been 450,000; this mortality resulted from pulmonary and laryngeal tuberculosis alone. We understand that the department of tuberculosis has been placed under the entire charge of the San Francisco member of the tuberculosis committee of the State Society, and that he will have absolute authority in the selection of suitable patients, and in the matter of personal supervision over them. The tuberculosis department is situated on the southern extremity of the City and County Hospital grounds and consists of a number of tent cottages with accommodations for twenty patients; a separate cottage is provided for administration purposes, also separate wooden buildings for kitchen, bathrooms, lavatories, etc. It is not the intention to make this department a place where helpless or very far advanced cases of tuberculosis shall be placed. It is indeed unfortunate that no suitable place exists for the accommodation of these patients, where they might at least be made comfortable and still not be a menace to others, but the importance of keeping this class of patients, afflicted with tuberculosis to a hopeless degree, from those who are still well, or but slightly infected, can not be overestimated. We therefore consider it very wise that

the ruling has been made at the very beginning of the existence of this tuberculosis department that no patient shall be admitted except he be in a hopeful stage of the disease. Only by following a policy of this sort can the best results be accomplished in the way of improvement or cure.

POLICY HOLDERS

Just now we refer to the holders of life insurance policies not fire insurance. We wish to call your attention particularly to a letter from a physician in this State to the president of one of the large insurance companies—the Mutual—which appears on another page. Most physicians carry life insurance, and particularly those who are or have been examiners for life insurance companies. Certainly no class of injured can form a better idea of what is going to happen in the future, with the big companies paying but $3.00 for a medical examination and having any old person make it, than can physicians. No one of us needs to be told that it is an exceedingly dangerous state of affairs. Has any company the right to jeopardize the value of policies now held, by reckless and careless examination of future risks at the hands of poorly paid and often incompetent examiners? This is a phase of the question which should receive the careful attention of insurance commissioners the country over, and especially in states where the great majority of the better and competent physicians are refusing to make examinations at cut rates. Instances are beginning to come to our attention where grossly incompetent persons have been allowed to examine risks, because the local members of the county medical society would not sacrifice their self-respect by doing cut rate work. When the return of death comes in, what effect is this sort of carelessness going to have upon the now ample assets of the company? There is hardly a single well qualified physician in the country who can afford to give the time necessary for making a thorough examination and filling out the required blank, for $3.00. Indeed, in many communities the best men will have nothing to do with insurance examinations at $5.00, as they are too busy to afford to give their time at that figure; what then must be the condition of things when the remuneration is cut to $3.00?

ANNOYING CARELESSNESS

Some consulting physicians and surgeons of San Francisco have brought to the attention of the JOURNAL what may seem a trifling thing, yet one which is a great annoyance. Patients will be referred to them from colleagues in the country, without a line to the consultant as to what is desired. Is the consultant to examine the patient and report to the family physician? Or is he to tell the patient what he finds? Is he to care for the patient himself, operating if need be, or is he to send the patient back home to be cared for by the referring physician? And after he has carefully examined the patient, possibly making some x-ray plates, prints of which, together with a long letter setting forth the condition which he has diagnosed, he has sent to the physician so kindly referring to him the patient —he receives no acknowledgement whatever. It has happened, we are told, that not even the receipt of such a letter has been acknowledged, and the further history of the patient, often a matter of some interest to the consultant, remains a mystery. Now, this is not right. Any person who goes to the trouble of writing a letter to another on some subject of common interest, certainly has earned the consideration of an acknowledgement of his letter at least, if not indeed, a reply in kind. To fail to acknowledge the receipt of an important letter is not only unbusinesslike, it is absolutely discourteous. To the writer of the letter, it is a great annoyance to have his communication go unanswered, for he is left in doubt as to its receipt. Any physician who refers a patient to a consultant without a word as to what is wanted, can not complain if the consultant uses his judgment, operates upon the patient, if need be, and in general handles the patient as though he were his own.

THE OCCURENCE OF OCCULT HEMORRHAGES IN TYPHOID FEVER.

Since the publication in 1904, of Joachim's observations in occult hemorrhages in typhoid fever several investigators, notably Tedeschi, Petracchi and Steele, have contributed to our knowledge of the subject. More recently Tileston (1) has restudied the question and in an interesting article reports the results of examinations of the stools from 68 cases. The guaiac and aloin tests for blood pigment were uniformly employed. Positive results were obtained in 25% of the cases. The reports of different investigators are by no means uniform. Thus, Tedeschi observes it in only three out of twenty-four cases. Petracchi, on the other hand, obtained positive results in eight out of eighteen cases (44%), while Steele found traces of blood in about 16% of his series. Zuccola is the only observer whose results were positive in every case. These conflicting statements are due probably to several causes as pointed out by Tileston. In the first place, there may be variations in the severity of the epidemic; secondly, differences in technic and the frequency of the examinations of the stools are also important factors. Of course, the personal equation is always important when a color reaction is in question. Subsequent studies will probably show results quite similar to those to Tilestone.

The occult hemorrhages appear in the second week of the disease, persist during the following week and reach their maximum in the fourth week. The fifth week, usually afebrile, gives the lowest figures. In many cases, on the day of positive reaction the temperature was considerably elevated.

The relation to gross hemorrhages is interesting but disappointing. In Tileston's series hemorrhages occurred in seven cases (10%); in six of these, although the stools were examined in all within the

preceding twenty-four hours, tests were negative. In one case only were positive results obtained before the bleeding became manifest. Furthermore, the occurrence of occult hemorrhage seems to be of little prognostic significance.

GASTROENTERIC AUTOINTOXICATION; ITS RECOGNITION AND SIGNIFICANCE AND ITS RELATION TO ARTERIAL HYPERTENSION.*

By W. A. BRIGGS, M. D., Sacramento.

(Continued from April Journal, p. 133.)

(Note.—The first portion of this paper appeared in the April issue of the Journal and the remainder was to have appeared in the May issue. It is needless to state that the type was destroyed. The author has been good enough to furnish us with a copy of the balance of his article, and we take pleasure in presenting it to our readers.—Ed.)

Difference in method, in size of the artery, thickness and resistance of the coats, and in the thickness of overlying tissues, form not inconsiderable and more or less inevitable elements of error. In the vast majority of cases, however, the findings of the educated finger, interpreted by the educated judgment, are of real value either in and of themselves, or as indicating the necessity for instrumental measurement. Instruments for measuring blood-pressure are of numerous forms and difficult classification. Janeway divides them somewhat as follows:

(1) Those which apply pressure to the artery by means of a solid block, and register a pulse tracing. Marey's sphymograph is the best known of these instruments. They are difficult of application; their findings depend largely on the personal equation, and therefore they do not lend themselves to accurate scientific comparison. Consequently, they are of purely historic interest.

(2) Those which apply pressure directly to the artery through a fluid or gaseous medium, and indicate blood-pressure by either spring or mercurial manometer. Of these the sphygmomanometer of von Basch was the first to meet with successful clinical use. The findings of these instruments depend largely on individual factors both objective and subjective quite independent of the actual blood-pressure, and are therefore variable and unsatisfactory. In consequence, these instruments have been all but superseded by others of the class next to be mentioned.

(3) Those which make pressure on the artery by circular cushion of compressed air, and for their criteria depend on the distal arterial pulse. The first of these was the Riva-Rocci, followed by numerous modifications, which, on the whole, have greatly increased its accuracy and convenience. Of this form of sphygmomanometer and its modifications I have used the Riva-Rocci, the Stanton and the portable Janeway. Both the Stanton and the janeway may be used to determine diastolic as well as systolic pressures. They are both excellent instruments, the portable Janeway, perhaps, being somewhat more convenient for the combined work of house and office.

(4) Those which make pressure on the artery by circular cushion of compressed air, and depend for their criterion on the distal capillary circulation. Of these, the Gaertner Tonometer is the best known. Martin has improved this instrument by substituting a finger-band of the Riva-Rocci type for the Gaertner ring. Instruments of this type measure systolic pressure only.

(5) Those which make pressure on the artery by circular cushion of compressed air, depend for their criterion on the return of the distal pulse, indicate the arterial tension by a mercurial manometer, and graphically record its variations. Of these instruments, Erlanger's is one of the best. While admirable for scientific work, it is too complicated and cumbersome for routine work in general practice.

In an early period, we may cure at least a majority of these cases; later, we may generally arrest or greatly delay their progress; but in their terminal stage, we are little more than sympathetic spectators of a tragedy long since inevitable. The early recognition, and the prompt and intelligent treatment of gastroenteric autointoxication and the degenerative processes which follow in its course, are therefore among the most important duties of our profession. Our text-books in dealing with the therapeutic aspect of these questions are most perfunctory, and our periodical literature is fragmentary and inadequate.

In my opinion, iodides and nitrites are not by any means our only resource, or even our main reliance, in any but the terminal stage of these troubles—when their effect is purely palliative. I have therefore attempted to envisage this subject from another than its somewhat stereotyped aspect, in order to suggest a more rational and effective prophylaxis and therapy.

To Federn, I believe, is due the signal credit of being a pioneer long in advance of the main body of his confreres in the recognition of the essential nature of these troubles, of their pathogenesis, and their effective treatment. But his voice, like that of many a pioneer, as he himself laments, has been a crying in the wilderness. Federn did not recognize, perhaps, nor in this paper do I presume to present, the complete pathogenetic chain; but unless I am greatly in error, his has been the enviable fortune to discover important diagnostic criteria, and to suggest measures indispensable to successful treatment.

Convinced as I am, that arteriosclerosis and arterial hypertension in a very large, if not the greater number of cases, owe their origin and progress to perversions of the digestive functions; in other words, are but a secondary stage of gastroenteric autointoxication, I not unnaturally consider these conditions together, and regard a painstaking and intelligent supervision of the digestive tract and its tributary organs as absolutely indispensable in their prevention and treatment. Syphilis, lead, alcohol, and various acute infections, are unquestionably potent factors in the development of arteriosclerosis.

* Read before the Yolo Society for Medical Improvement, November 7, 1905.

I ignore these, however, not only for want of time for their consideration, but also, and more particularly, because I desire to focus attention on more important etiologic factors.

Great judgment is necessary in the regulation of the activities of the patient. Excitement, fear, anger, pain, all forms of active mental labor and physical exertion, particularly if attended by mental effort, markedly increase arterial tension. Emotional disturbances, therefore, and mental or physical strain, should be sedulously avoided.

In advanced or extreme cases, running on a slender margin of cardiac reserve, or approaching the danger point of intracranial tension, both mental and physical rest must be enforced. But mental occupation and physical exercise are physiological necessities, and in the milder cases should be regulated, not unreasonably curtailed. Equanimity, so likely to be seriously disturbed in these cases, should be systematically fostered; although, especially in the early and amenable stages, the patient should be sufficiently impressed with the importance of the condition to secure implicit obedience to a necessary but irksome regimen. Whether from the digestive or the circulatory aspect, it is difficult to exaggerate the value of moral influence. The principles enunciated by Dr. Dubois in his classic and invaluable work, "Les Psychoneuroses et leur Traitement Moral," are of much wider application than is implied by the title; but their elucidation here would lead us too far.

Rest and change, relief from harassing responsibilities and from friction of all sorts, assist in restoring the nervous system, and thus indirectly, but powerfully, promote the digestive functions. Recreation and diversion are of inestimable value. Recreations innumerable crowd upon the mind—walking, riding, rowing, fishing, hunting, mountain-climbing, hand-ball, golf, tennis, billiards, nature-study in various forms. Music is one of the best of recreations. In the embarrassment of riches in mechanical players — cecilian, angelus, pianola, eolian, orchestrelle and what not—every taste may be gratified and every whim indulged. By emancipating from years of drudgery, and keeping on tap, as it were, the greatest variety of musical masterpieces, they are destined to play a great part in the hygiene of the nervous system. From a somewhat extended personal knowledge, I find it difficult to praise them too highly. And then literature and art and poetry, noblest of them all! Let Wordsworth lead us back to nature!

In the treatment of gastroenteric autointoxication, whether or not associated with its later phenomena, the causal indications must be kept constantly in the foreground. These may be summarized in one sentence: *Check the abnormal gastroenteric decomposition.* To meet these indications, catarrh of the nose, throat and bronchi should be cured, carious teeth should be either filled or removed, and the mouth should be kept in a clean and healthful condition. The diet in quantity and quality should be adjusted to the requirements of the system and to the capacity of the digestive organs; while ample for all of the needs of the economy, it must not be excessive, particularly in nucleins and albumenoids, which, by their putrefaction, are the chief if not the sole agents in the morbid conditions under discussion.

The experiments of Chittenden and Folin conclusively demonstrate that the quantity of protein necessary to maintain nitrogenous equilibrium is less than half that estimated by Voit and practically adopted in the American standard of living. A material reduction of protein should therefore usually be advised. A moderate lactofarinaceous diet may easily carry the fifty or sixty grams of protein considered necessary by Chittenden.

We Americans eat—no, we do not eat, we *bolt* —too much food, too rich food, foods unfit by nature and damned by the cook. We are culinary barbarians. Foods, then, should frequently be reduced in quantity, but never below a moving equilibrium of the economy; and they should generally be more scientifically prepared and more esthetically served. Appetite, as Pawlow has demonstrated, is the most powerful adjunct of good digestion. The "appetite juice," as he graphically calls it—the flow of digestive juices excited through the optic, olfactory and gustatory nerves by desire and relish—is abundant and prolonged. It should be stimulated by appeal to the special senses—to memory even, and the association of ideas. The table should be a place of relaxation, leisure and delight.

In the regulation of diet, fresh meats, eggs and fish should first be limited; and legumes, salt and preserved meats and fish—"canned goods," as they are euphemistically called—should be prohibited. If intestinal putrefaction still continues, a lacto-vegetarian, and later if necessary, a strictly vegetarian diet should be adopted. Haig, who is an especial advocate of the vegetarian diet, says it will reduce excessive tension to normal in a short time. While my own results have been favorable, they have not been so prompt and radical as Haig's reports led me to hope.

Changes in diet should generally be gradual and conservative, in order both to educate the tastes of the patient, and to develop latent digestive and assimilative powers. Sudden and radical changes often begin to disgust and end in failure. The dietary, whether mixed, lacto-vegetarian or purely vegetarian, should contain a moderate quantity of fruit and a large quantity of bran. If the views of Federn are correct, bran should serve two important purposes in these cases; as a laxative, and in preventing adhesion of the fecal mass to the bowel mucosa. As a matter of fact, following the practice of Dr. Simmons, I have for several years prescribed it in constipation with excellent results. Each patient should be provided with a diet list as varied as possible, and in as far as possible conforming to his tastes and habits.

Following the suggestions derived from Pawlow's experiments, food, as I have already pointed out, should be "appetizing"; farinaceous foods should be taken dry so as to stimulate the salivary secretions. Oils and fats, with the exception of butter, inhibit gastric secretion, and should not be taken with meals, but two or three hours after,

when they soon enter the bowel and actively promote pancreatic and intestinal secretion. Animal broths powerfully stimulate the stomach, and should precede each meal. In cases of achylia gastrica or marked hypoacidity, from 25 to 50 minims of dilute hydrochloric acid taken in from eight to twelve ounces of highly carbonated water two or three hours after each meal promote the secretions of the liver, pancreas and intestine. Vegetable acids answer a similar purpose and, when they agree, may be used instead of the mineral acids. That foods should be thoroughly masticated one would think goes without saying; and yet only a few months ago a respectable contributor to one of our leading journals gravely maintained that mastication of meats is a work of superogation. This is probably true of the anaconda. As far as man is concerned, however, a consideration of the mathematics of digestion conducts us inevitably to a different conclusion. Speaking broadly, foods are digested entirely from the surface. Therefore, *ceteris paribus,* they digest in ratio to the surface exposed. A solid one inch in diameter exposes one-tenth part of the surface that it would expose if divided into similar solids one-tenth of an inch in diameter, and other things being equal, is consequently one-tenth part as digestible. Starchy foods require thorough mastication not only to increase their surface, but also to mix them with the saliva and thus secure their digestion before they enter the stomach.

If foods are digested by the salivary and gastric secretions, absorption may go on through the entire length of the small intestine. Comparatively little proteids would thus reach the colon to putrefy and poison the venous system. Thorough mastication, moreover, means more time and attention given to the digestive processes, and, within certain limits, a corresponding stimulative and tonic influence on the digestive function.

Normally, foods should be absorbed and their undigested residue excreted within from eighteen to thirty-six hours from the time they are ingested. In conditions of fermentation and putrefaction, their passage should be more rapid. Delay means a greater production and absorption of toxic substances.

In addition to a laxative diet, laxative remedies are often indicated to sweep bacteria and their toxins out of the intestines. Purgation sometimes permanently clears the intestinal tract of noxious bacteria. Calomel, phenolphthalein, cascara, aloes, sulphur, senna are ordinarily to be preferred. Eserine and strychnia assist in toning up the weakened bowel, and should be used in conjunction with laxatives and bitter tonics as required.

In the long run, and presuming the ingestion of only the normal quantity of proteids, the prevention of an abnormal toxicity of the gastroenteric contents depends, in the main, on normal conditions of secretion, motility, absorption and drainage. But these can by no means always be promptly established, and antiseptics, therefore, may be occasionally useful if not indispensable. They may be advantageously combined with laxatives. Naphthalin, although inclined to produce tenesmus, is useful; alphozone is useful in the upper tract, and perhaps in the lower, although my personal observation does not fully convince me; oil of cloves and thymol in an olive oil emulsion with carbonated water two or three hours after meals, has often seemed to me of distinct advantage. It is an admirable stomach disinfectant. In these cases the liver is usually incompetent, and olive oil is possibly useful by the formation in the bowel of sodium oleate, which is said by some to have a distinct cholagogue effect.

Federn extols the faradic current in partial atony. He places one pole over the atonic segment, and the other over the lower sigmoid, over the anus or even within the rectum, and passes the current for fifteen or twenty minutes daily. This may be continued for several months—from three to six—before permanent results can be expected, and even then, relapses occur. I am thoroughly convinced of the great value of electricity, and employ the faradic current after the method of Federn, as well as the sinusoidal and the wave current. Formerly I employed the interrupted galvanic current, but perhaps mistakenly abandoned it on account of the greater convenience of the other currents.

Absorption should be promoted so that as little proteid as possible may pass into the colon to putrefy. Abdominal exercises, massage and vibration, a normal peristalsis and a normal blood-pressure are our chief means for this purpose. Vibration of the spinal nerves, and massage of the abdomen and exercise of the abdominal muscles, are valuable.

The fauna and flora of the human intestine are not exempt from the struggle for existence, or from the interdependencies and antagonisms which dominate the flora and fauna with which we are more familiar. Metchnikoff suggests the possibility of so modifying our intestinal flora as to make it entirely, or at least comparatively, harmless—to transform it, as it were, from a savage into a civilized flora. This seems in a measure to have been accomplished by the use of kefir and kumyss. I have used both in a large but not in a sufficient number of cases, to warrant a personal opinion. That Metchnikoff suggests it is warrant enough for its tentative acceptance.

Atony and dilatation of stomach, functional and organic stenosis of pylorus, the various forms of visceral ptosis and relaxation of the abdominal walls, should be corrected by abdominal exercise, by an efficient support, by electricity, strychnia, and if necessary by an appropriate operation. Mechanical impediments lower down, fissure, fistula and hemorrhoids should receive appropriate treatment. Tobacco, alcohol, tea, coffee, cocoa and chocolate should be interdicted. All of these things either impair digestion, stimulate the heart, or increase peripheral resistance.

Chronic infection of the intestinal mucosa is quite as inveterate as chronic mucous infections elsewhere. It sometimes persists in spite of prolonged and conscientious treatment. In selected cases of this refractory character, it is possible that appen-

dicotomy, with systematic efforts to disinfect the colon might be justifiable. It certainly is a rational procedure, and affords excellent results in chronic dysentery.

In the secondary or degenerative processes and their attendant functional disturbances, the same dietetic, hygienic and therapeutic management as in the primary stage is necessary.

Of the secondary effects, anemia should receive the same treatment as in other conditions; iron, arsenic, manganese, but in their less irritating forms. The peptonates, albuminates, etc., seem to me to be particularly adapted to these cases.

In arteriosclerosis of presumably gastroenteric origin, if the iodides are useful, they have not been brilliantly so under my observation. In deference to general opinion, however, I continue to use them. In some cases, potassium iodide may have retarded the degenerative process, and it has seemed to me distinctly useful in reducing arterial tension.

Arterial hypertension is perhaps just now our most distinguished symptom. But although a symptom, it is also a link in a chain of morbid processes which, unless arrested, lead inevitably to dissolution. Practically all of the measures already indicated are essential in the prevention and cure of arterial hypertension of gastroenteric origin. They remove the cause. In prevention and in the treatment of the early stages, they are sufficient. In addition, the skin should be kept warm so as to dilate the arterioles and capillaries of the cutaneous areas, and thus diminish the peripheral resistance, and consequently arterial tension also. The kidneys should be kept active in order to eliminate toxins and to reduce the volume of blood.

Whenever hypertension menaces either the heart, the arterioles or the circulatory balance, however, more active measures are indispensable. Here the nitrites often render marvelous service. In all my therapeutic experience, I recall nothing else even approximately so spectacular as the effects of a hypodermic of nitroglycerine in edema of the lungs due to rupture of circulatory balance.

If, notwithstanding a strict regimen, the systolic pressure exceeds 160, and particularly if, at the same time, there be evidence either of inadequacy of the heart or of degeneration of the cerebral arterioles, the nitrites should be systematically used in conjunction with potassium iodide. Sodium nitrite, in doses of one decigram or more as necessary to produce its physiological effects, is the best of the nitrites for continued use. The vasomotor centers become gradually, in some cases rapidly, accustomed to the nitrites, and may finally cease to respond to them. Besides, in large doses, sodium nitrite irritates the stomach, and in company with the other nitrites, may have other untoward by-effects. Its use, therefore, should not be begun too early, or continued too unremittingly. When rupture of the circulatory balance threatens, the patient should always have with him amyl nitrite pearls, or hypodermics of nitroglycerine, for use in attacks of cardiac asthma, edema of the lungs, and angina pectoris. I have repeatedly seen life saved and materially prolonged by this precaution.

Aconite and veratrum viride are often useful in subduing the heart's action; but they should rarely be used except in conjunction with the nitrites, and never unless there is evident cardiac reserve. With these limitations, I have found them unquestionably beneficial.

Failing compensation, with secondary low pressure, require the most careful management, even to the minutest details. In these cases a slight increase of the toxemia, by raising the blood-pressure, may exhaust the cardiac reserve. Hence, the diet and the functions of the digestive tract should receive constant and careful attention. Merck's digitalin in liberal doses—from one to three centigrams four times a day—well guarded by the nitrites and continued for a long period, is often of great service. The addition of morphine to secure rest and to stimulate the heart in extreme cases, is a great boon.

In cardiac asthma, and pulmonary edema with hypertension and cardiac reserve, hot-air baths reaching a temperature between 350 and 450 degrees Fahrenheit, I have seen produce phenomenal and permanent improvement. They produce a marked initial lowering of blood-pressure, stimulate the functions of the skin and kidneys, promote metabolism, and probably in undetermined ways promote recovery.

PAIN. *

By E. R. WAGNER, M. D., San Jose.

Pain leads patients to seek medical relief, perhaps more than any other one symptom of disease. The more insistent and obstinate it is, the quicker is relief sought. In no other part of the body is this symptom more frequently manifested than in the head and nowhere else is the cause more apt to be obscure and the relief, consequently, more uncertain. I doubt whether pain is as hard to bear in other parts, as it is in the head; or whether it unfits a man so completely for usefulness in society.

That part of the head which is of greatest interest to the nose and ear specialist, embraces a number of nearly closed cavities, lined with a sensitive mucous membrane. When congestion, exudation or suppuration occurs, the unyielding walls afford but little room for expansion and pressure symptoms, chief among which is pain, are the result. Toothache is often patiently borne, because the consequences of neglect are not usually considered serious. When, however, one learns from statistics that 70 per cent of cases of empyema of the maxillary autrum are due to disease of the teeth, the subject assumes a different aspect. Earache, especially in children used to be treated carelessly, or not at all, but of late years the direful consequences of neglect are becoming more widely known, and pain in the ear of even short duration is cause for anxiety, and doubly so if it occurs in the course of the exanthemata, influenza or diphtheria.

A correct diagnosis of the cause of pain in the ear is essential to effective treatment, and in the

* Read before the Santa Clara County Medical Society, April 11, 1906.

more serious affections an early diagnosis is very important. Violent throbbing pain may be due to dermatitis phlegmonosa or to follicular inflammation of the external auditory canal. A violent radiating pain may also be caused by herpes zoster, condylomata or foreign bodies. Neuralgia of the external meatus, or the tympanic plexus, may complicate the diagnosis. The neuralgia may be local in origin, or arise from irritation of the trigeminus or cervico-occipital nerves. When from the superior maxillary branch of the trigeminus, the pain is limited to the middle ear. If from the inferior maxillary nerve, it is felt both in the external and middle ear. Carious teeth, especially in children, ulceration or abscess in the pharynx or larynx, affections of the accessory sinuses of the nose, may singly or collectively, cause pain in the ear. Occasionally beginning otosclerosis causes intermittent pains of a stinging and tearing character in the deeper parts of the ear. Traumatic rupture of the tympanic membrane is generally accompanied by pain, and may be followed by long continued and painful suppuration with a secondary inflammation of the external meatus and mastoid. Rarely, the pressure of a very hard plug of cerumen causes a piercing pain, while mycosis and eczema give rise to itching and shooting pains. Acute myringitis is more difficult to differentiate from acute otitis media than any of the preceding, presenting as it does, the signs of inflammation in the tympanic membrane itself. It is distinguished by a shorter duration, generally lasting only three or four days. The hearing is more affected in acute otitis media on account of the copious exudation.

Acute otitis media is always an anxious affection from the anatomical relations of the middle ear. It is shut in by bony walls and the tympanic membrane and its only communication with the outside air is through the narrow eustachian tube. This is about one and a half inches long and its mucous membrane may be swollen so as to render it useless for drainage, or its inner end may be plugged with adenoid tissue. Communicating with the antrum and mastoid cells by the mucous membrane lined aditus, and separated from the brain and lateral sinus by a very thin partition of bone which may be wanting in places, a serious extension of inflammation in the middle ear is a very likely occurrence, which a timely opening of the tympanic membrane is sometimes powerless to prevent. Aural polypi are sometimes accompanied by a feeling of pressure, heaviness and pain in the ear.

The pain in mastoiditis may be persistent or remittent. It is usually increased by pressure, the tender spot often pointing to the location of the abscess. Occasionally, however, there may be no pain nor tenderness. In acute periostitis of the mastoid process the pain is described as violent and radiating, increasing on slight pressure and on motions of the head. Chronic inflammation of the mastoid process may continue for years without symptoms. If in these cases an acute inflammation arises from catching cold, traumatism or infection, violent symptoms occur. There are violent, beating and piercing pains in the region of the mastoid and radiating toward the cervical region.

In the diagnosis of intracranial diseases of otitic origin pain is a prominent symptom. In extra-dural abscess we get intense pain over the entire temporal bone. Lepto-meningitis diffusa purulenta almost always begins with headaches, which are at first of a remitting character. Later they become more severe with motions of the body and finally become continuous. Headache is also a prominent symptom in meningitis serosa. An abscess in the temporal lobe is often accompanied by headache localized in the parietal region of the affected side, or abscess in the cerebellum by occipital headache. There is often a circumscribed point of tenderness. Headache is a minor symptom in sinus thrombosis. In thrombosis of the cavernous sinus we may have neuralgia of the trigeminus. When thrombi have extended from the lateral sinus to the internal jugular vein, we get a tough band in the course of the latter, which is very painful to pressure.

Pain is as frequent in diseases of the nose and its sinuses as in aural diseases. Foreign bodies animate or inanimate, may be the cause. The larvæ of certain flies sometimes invade the nasal cavity, "maggots in the nose." They cause severe, persistent pain over the frontal occipital, or vertical regions, and severe, throbbing headaches. Nasal lupus is painful, as a rule, to the touch, though its presence and growth give rise to but little pain.

Nasal hydrorrhea and chronic edematous rhinitis may cause headache and pain. Neuralgic pain referred to the vertex, as well as to the upper pharynx and roof of the mouth, sometimes occurs in acute naso-pharyngitis. In osteoma, pain is early present and usually severe. The pressure of a septal spur against the middle turbinate, is a not infrequent cause of obscure headache.

In catarrhal and suppurative inflammations of the frontal sinus, pain is a prominent symptom. It is unilateral or bilateral, according as one or both sinuses are involved. It is severe, heavy and aching or sharp and neuralgic, and is confined to the frontal region. It is made worse by coughing, strong heart stimulants, blowing the nose, or bending the head forward. There is a sense of weight and fulness in the forehead, and marked tenderness of the supraciliary region. In confined suppuration, the pain is localized in the frontal region, is constant, throbbing and boring, with severe headache.

The pain in inflammation of the maxillary sinus varies from a sense of uneasiness or a dull ache, to pain of a very tense character. It may be wanting entirely. It may be intermittent and vaguely localized in the head and cheek. It is often referred to the frontal, maxillary, temporal, or occipital regions, or to several of them at once. In ethmoiditis the pain is deep seated and referred to the posterior region of the orbit, or eyeball. As the disease progresses, it spreads from the infra orbital to the temporal region.

In empyema of the sphenoidal sinus, the pain varies in site and character. The headache may be dull and diffuse, or sharp, localized and neuralgic. The pain may be referred to the supra or infra

orbital nerves; or when there is pent up fluid, it may be referred to the entire distribution of the fifth nerve of the affected side. It is constant or remittent.

From what has been said, it is apparent that pain while at times a valuable differentiating symptom, may again be quite misleading in its indications as to the location of disease. This fact emphasizes the importance of an intimate knowledge of the symptom complex of diseases of the nose and ear. Only a thorough-going familiarity with the anatomy and physiology of the parts will enable the surgeon to relieve these cases with the certainty which modern specialism demands. The continual giving of headache powders in place of discovering and removing the cause, is but little short of malpractice.

The most prolific source of headache remains to be mentioned. According to different authorities, eye-strain is responsible for 40 per cent of all headaches and from 80 per cent to 90 per cent of "bilious headaches." There can be little question now as to the necessity of an early elimination of this important factor in all obscure cases of headache. A thorough examination of the eyes should be made, and it may not be out of place to add, "by an oculist," since there are still some physicians who so little comprehend the necessity of accurate testing of the eyes as to refer patients to the optician for treatment.

I wish to make mention briefly of two cases which have been very instructive to me in the long-drawn-out effort to trace the varied pains to their cause and which illustrate the interdependence of diseases of the eye, ear and nose.

Miss B, age 16, came to me September 4, 1902, on account of constant pain in the eyes. She had worn glasses for ten years. The mother said the vision of the right eye had been bad since an oculist had used homatropin in it a few years before. Later she admitted that this eye never had good vision. The right eye had vision 2-100 not improved by glasses. The left eye vision 10-100 improved to 20-30 with Sph. plus 4.50 and cylinder 3 axis 90 degrees. The optic disc of the right eye was congested and its margins blurred. The eyes were refracted and kept under atropine for some days with a decided temporary relief from pain.

December 17, 1903, Miss B. came to me on account of an ache of two weeks' duration in the left ear. The ear had been discharging for one year. Found an abscess at the outer end of the external auditory canal, pus issuing from the upper part of the tympanum and the lower 2-3 covered with granulations. Removal of these, cleansing with peroxide and a freer opening of the tympanum gave partial relief from pain. December 25th, there was pain and tenderness over the mastoid, with some swelling. Hot irrigations and ice over the mastoid failed to relieve and on December 27th I did a Schwartze operation. No pus collection was found and the bone was sclerosed. Two or three weeks after the operation the patient had boils on the chin and under the arm. Exuberant granulations had to be suppressed and the discharge in the ear did not entirely stop. Early in February the recurring mastoid pain was lessened by curetting, but it later increased so that on March 6th the radical operation was done. Most of the apex was removed and both duramater and sigmoid sinus were exposed. A Pouse flap was made. After the operation the left eye became more sensitive to light than the right. On March 23rd some albumen was found in the urine, which on April 4th measured only 10 ounces in twenty-four hours. There was pain over the kidneys. Patient said she used to have this pain in school. On April 11th there was complete suppression for twenty-four hours, and only six ounces was passed during the next twenty-four hours. Patient sweat quite a little. Insomnia was a very troublesome symptom, the patient not getting over two or three hours' sleep a day for a long time. Examination of the mastoid discharge showed staphylococci, diplococci and some streptococci. There were no tubercle bacilli found. Pain recurring over the mastoid necessitated a supplementary radical operation. There was a tubercular history on her father's side and a scrofular one on the mother's. For some weeks there was one degree of fever at night. Was rather anemic. July 18th went to Santa Cruz and there she steadily got stronger. The pain became less continuous and gradually the slight discharge ceased. By January, 1905, the ear was well.

During the year the vision of the left eye deteriorated and was now only 20-70 with the correction. The disks were slightly hazy. October 23rd, 1905, the vision was still the same and the same old pain over the right eye. She said her headache was worse on taking cold. There was no discharge from the nose, but the right middle turbinate was full and pressed on the septum at times. I decided to try the effect of cutting off the anterior extremity of the turbinate and was gratified to learn later that her headache, which she had had as long as she could remember, had disappeared.

The other case, Mrs. K., age 40, came to me December 27th, 1902, for her eyes. She had much headache when a girl in school and her vision was never good. For some months she had been having excruciating occipital headaches. She was wearing from an optician spherical plus .50 with a 3 degree prism base out over each eye. The optic disks were congested and the margins somewhat blurred There was esophoria with right hyperphoria. There were also some peripheral opacities of the lenses. She was refracted under atropine and fitted with, right eye, spherical plus .50 with cylinder plus 2.50 axis 90 degrees; giving vision 20-50; left eye, spherical plus .50 with cylinder plus 1, axis 65 degrees, giving vision 20-30.

Two and one-half years later, May 3rd, 1905, she was sent to me by her family physician on account of great pain in the right eye of four days' duration, which had become unbearable. Half an hour before coming to the office she had experienced a sudden relief from pain, accompanying a discharge of pus from the nose. The only cause she could give for her trouble was sitting in a draft a couple of days before the pain commenced. She had had a discharge in the throat for about a month. Family history negative.

An attempt was first made at cleansing the antrum through an opening made with a trocar in the inferior meatus. The symptoms became more severe, however, and on May 13th a good-sized opening was made with the dental drill through the alveolar floor, where the first molar was gone. The antrum was curetted and a gold tube inserted. On May 7th, following a hemorrhage in the nose, transient pain was felt for the first time in the right ear. Over a month later, June 9th, the patient complained again of pain in the right ear. It was more severe this time, but of short duration. June 28th pus was discovered in the mouth of the right eustachian tube and this appeared to be the chief source of an intermittent discharge in the nasapharynx. About this time also the left eye became painful and there was quite a little discharge from the left antrum. A week later the right ton-

sillar region became painful to touch, and pressure caused a discharge in the throat.

July 7th, marked relief followed the sudden discharge of an amount of pus low down in this region. Tenderness over the right mastoid was complained of for a couple of days. July 13th a paracentesis of the right tympanic membrane was necessitated by an acute otitis media. Two days later marked relief from pain in the head followed the removal of the anterior extremity of the right middle turbinate. August 4th further relief from pain followed a thorough curettement of the right ethmoid cells. Early in September the discharge in the throat became more purulent and the right ear and mastoid painful. The tympanum had been healed nearly two weeks. Paracentesis and ice over the mastoid failed to relieve the symptoms, and on September 11th a Schwartze operation was done. No collection of pus was found, but only a small granulation in the apex. Two months later the mastoid wound having healed and the right antrum and ethmoid become quiescent, the left side of the head, which had been grumbling for some time and had been relieved by an occasional irrigation of the left ethmoid and antrum through the natural openings, began to pain more steadily. November 27th the anterior extremity of the left middle turbinate was removed and a week later the ethmoid cells curetted. To complicate matters the right ethmoid began to trouble again and had to be repeatedly curetted. The stomach also began refusing to do its duty.

January 14, 1906, the right mastoid again became tender. Paracentesis of the tympanum, etc., failed to relieve and on the 18th the mastoid, after having been completely healed for two months, was again opened. As the right antrum was also getting uneasy, it was again opened and the tube re-inserted. Soon after, the right antrum became more violently inflamed than in the first instance. Then the frontal sinuses, especially the right, became tender. Fortunately an occasional irrigation has thus far sufficed to quiet these sinuses. The mastoid wound has been more painful in healing than after the first operation. It is still kept open by an occasional curetting on account of a slight discharge. The opening through the tympanic membrane is also maintained for the purpose of washing out a discharge which still accumulates in the eustachian tube, but does not appear in the external auditory canal. The right maxillary antrum has been quiescent and with no discharge for a few weeks, but the right ethmoid is not yet entirely so.

The left maxillary antrum failed to improve under daily washing through the natural opening, though the discharge was very slight. March 21st, under cocaine, a large opening was made through the molar prominence. There was a small hole in the bone at the extremity of the first molar tooth, from which exuded a few drops of pus. This tooth had a large amalgam filling and was inclined to be tender. It had been examined recently by a dentist, who did not think it was the cause of the antral trouble. The floor of the antrum adjacent to this tooth was covered with granulations and as the rest of the lining membrane appeared healthy the floor alone was thoroughly scraped and the offending tooth extracted.

An effort is being made to build up the general strength of the patient by a change of surroundings together with medicinal tonics. The lowered vitality has shown itself in the teeth, which have frequently of late required the services of a dentist. There is not a day when she is entirely free from pain. If there is not pain in one or more of the several sinuses involved, the teeth take their turn.

There has been a decided blurring of the vision, especially in the right eye. Microscopic examination has failed to disclose tuberculosis in the discharge.

The points of special interest in these cases are the following: Both had suffered for years with headache. They each had compound hyperopic astigmatism, which is a most frequent cause of eyestrain, of considerable degree, which had gone a long time uncorrected. In each there was a decided neurotic element, increasing as the obstinate resistance to treatment continued. In neither was there any pus collection found in the mastoid on operation, though the symptoms were so urgent as to compel the same. In each the temperature stayed below 99 degrees and was often subnormal. The relief from pain was marked at each operative procedure. In each the vision was markedly affected by the accompanying bone and sinus affections.

TRUE SCIATICA AND DISEASES OF THE POSTERIOR URETHRA AND ADNEXA.*

By G. S. PETERKIN, M. D., Seattle, Wash.

Judging from the acts and misunderstandings that occur between man and man, humanity today does not give recognition to the fact that words have only a relative value, and are simply a means of communicating ideas. I do not believe I am mistaken when I say that experience soon causes the practical physician to awaken to this fact, and that in medicine there are two terms more than any others that serve as cloaks of ignorance; they are, first, "rheumatism," and second, "neugalgia."

Cloaks so convenient have they been found, that they have and do cause many of us to think we may wear them consistently, if not constantly; carelessly place under their spacious folds conditions which though allied in character are entities, differ in their etiologic factors, and, therefore, very frequently in the treatment to be employed. This is especially true of many pathologic conditions that are placed under the term "sciatica."

"Sciatica," by the vast majority of authorities, is defined as a neuritis, peri-neuritis, or neugalgia of the sciatic nerve. I have searched a vast number of the best authorities, and by "best" I mean such men as Osler, Church and Peterson, Dana, Tyson, Musser, Starr, Butler, Oppenheim, and others, and nowhere do I find definitely stated that the symptoms accompanying chronic inflammatory conditions of posterior urethra and adnexa are mistaken for, or that such conditions cause, sciatica. Notwithstanding, I myself am firmly convinced that chronic inflammatory conditions of these organs more frequently than has ever been suspected, are the causative factors of the *symptom,* sciatica. My reasons for assuming this position are eight in number:

1. The sacral plexus of nerves from which the great sciatic and its branches are derived, is the plexus that supplies the posterior urethra, prostrate, seminal vesicles, bladder, rectum and uterus.

2. It is the function of this plexus to maintain station and locomotion; control the legs; also the posterior muscles of the thigh and buttocks; give

* Read at the Thirty-sixth Annual Meeting of the State Society, April, 1906.

sensation to these parts and carry fibers that regulate the sexual function, bladder and rectum. Moreover, from the sacral portion of the cord there is an outflow of nerves to the sympathetic, thence to the pelvic organ.

3. In people anesthetized to the degree that consciousness is lost, stretching of the sphincter ani will often cause straightening of the legs, a phenomenon you have all observed. In other words, through stimulating some afferent nerve in the rectum, the sciatic nerve receives the impulse and attempts to exercise its principal function, that of maintaining station or the erect position of the body. Likewise under similar conditions this phenomenon will often take place in the male if a sound is passed into the bladder; in the female when the cervix is dilated. Again, in the simple act of irrigating the bladder under hydrostatic pressure, if a very hot solution, 110 degrees to 120 degrees F. is employed, the patient frequently complains of feeling the heat travel along the course of this nerve down the leg to the toe.

4. By the physicians and neurologists mentioned, it is admitted that pressure, for example by ovarian and uterine tumors, impacted feces, etc., will cause sciatica, but affections of the male sexual and genito-urinary organs are not mentioned.

5. In examining the writings of genito-urinary surgeons, we find Fournier states that acute gonorrhea will cause sciatica. White and Martin, that chronic posterior urethritis may; and that chronic vesiculitis is very apt to cause pain in the lumbar region and along the sciatic nerve. Keyes, that the pain in posterior urethritis, prostatitis and especially vesiculitis is frequently neuralgic in character, and may exist in the lumbar region and extend down the sciatic nerve. Taylor, Lydston, Fuller and many others also speak of pain extending down the sciatic nerve and to the lumbar region in diseases of this part of the genito-urinary tract.

6. The ratio of frequency of sciatica in men and women is given as high as 8 to 1 by Church and Peterson; 4 to 1 by Dana.

7. Many conditions named as exciting causes of sciatica, as exposure, severe muscular strain, constipation, etc., are likewise predisposing causes to exacerbations of chronic posterior urethritis, prostatitis, and vesiculitis.

8. Ninety-five per cent of men in large cities have gonorrhea; with a resulting 20 per cent of chronic posterior urethritis, prostatitis, vesiculitis, (not necessarily infectious).

To sum up, we have in 1, 2 and 3 such anatomic, physiologic and clinic evidence of the intimate relationship between nerves supplying the male sexual organs and the sciatic nerves that we may conclude that it is not only possible, but even probable, that inflammatory conditions of these organs will cause reflex pain in the sciatic nerves. In 4, pressure, merely another form of stimulus is admitted to be a cause of sciatica. In 5, we have conclusive evidence, the observation of competent men, that inflammatory conditions of the male sexual organs will cause lumbar and sciatic pain. In 6, we find that this disease occurs fully five times as frequently in man as in woman. And in 7, that chronic inflammatory condition of the male sexual organs is very prevalent. In 8, that the exciting causes given for sciatica are the same as the predisposing causes to exacerbations of the chronic inflammation of the male sexual organs.

These statements being true, the logical conclusion to be drawn is that one of the main, if not the chief etiologic factor of sciatic and lumbar pain, when the subjective and objective symptoms of a true neuritis is not present, is due in a large percentage of cases in the male to chronic pathologic conditions occurring in 1st, the seminal vesicle; 2d, the prostate; 3d, the posterior urethra; 4th, the anterior urethra, separately or combined.

Yet in the writings of most of the authorities, within whose province it is to treat sciatica, the fact that diseases of the male sexual organs are etiologic factors of great importance, is practically overlooked.

Therefore, I advise that in treating the symptom of pain that occurs in that portion of the human anatomy to which the sciatic nerves are distributed, that we remember the ambiguity of the term sciatica, and if we employ it, subdivide the symptoms that come under its heading in two classes:

(a) Sciatic neuritis or true sciatica, the symptoms of which are those common to all inflamed nerves.

(b) Symptomatic sciatica or false sciatica, the symptom of which is pain in or along the sciatic nerve with absence of the local objective symptoms that accompany a neuritis, such as definite local points of tenderness, sensory and nutritive disturbances, etc.

It is this last class of cases with which we are concerned, and the cure of which will depend upon one's ability to find and remove the causes; and in the male the most probable cause is, as I have stated, chronic inflammatory conditions of the male sexual organs; inflammatory conditions that are not necessarily patent to a superficial examination, but like a small cavity in a tooth must be diligently searched for. Factors that lead one at times to suspect these organs are: a venereal history, not necessarily recent; pain dull instead of lancinating, persistent and consistent in character, frequently worse on rising, but improves with moderate exercise; yet when over-exertion takes place not only is the pain aggravated, but there is also an enervated "gone" feeling, mental and physical, that is not due to, but independent of the pain.

Time being limited, a more detailed description or recital of cases is impossible; nor is it necessary. For the object of this paper is merely to call to mind the importance of examining the male sexual organs before making a diagnosis and instituting treatment for sciatica. If, by physicians and neurologists the fact is recognized and emphasized that it is a logical procedure to examine thoroughly the teeth before making a diagnosis for tri-facial neuralgia, to my mind, it is as essential to thoroughly examine the male sexual organs before making a diagnosis of sciatica; and, judging from personal

experience and observation, if this is done, the number of cases diagnosed as lumbago and sciatica will diminish. Moreover, the belief will perhaps enter your mind as it has mine that the hip joint alone is at times invaded by gonococcus or its toxines, and when it is, the symptoms are such that an erroneous diagnosis of lumbago or sciatica will be made if the cause of the pain is not systematically sought for.

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CHOICE OF ANESTHESIA.*

By H. L. PARISH, M. D., Calistoga.

The choice of an anesthetic calls for the consideration of the purpose for which it is to be given, the patient upon whom it is to be used, and the agent with which anesthesia is to be accomplished. This will include a somewhat detailed description of the various agents and forms of anesthesia, and multiple pathological states, only upon an understanding of which can an appropriate choice be made.

The patient is the chief factor in the problem, His interest demands careful inquiry regarding age and heredity, an accurate comprehension of his physical status, and to what extent it has been influenced by the pathological entity, whose existence now calls for surgical intervention.

Local anesthetics act mechanically by nerve pressure, and physiologically by paralysis and temporary inhibition of nerve conductivity. Under this head, mention will be made of cocaine and ethyl chloride only, calling attention in passing to their uses in dental practice, in eye, ear, nose and throat work, in the opening of furuncles and superficial abscesses, the removal of sebaceous cysts, external piles, anal fissure, etc.

The wider application of cocaine in a field originally occupied by general anesthetics, viz: the radical cure of inguinal and fermoral hernia, requires more than passing notice. Its advantages are numerous: Safety, by reason of the small amount of cocaine required, (the parts being completely anesthetized by a system of nerve blocking as practiced by Bodine, with ¼ per cent aqueous solution), absence of shock, the possibility of leaving the parts in situ for such time as is necessary to determine the vitality of the bowel in strangulated hernia, and the voluntary assistance rendered by the patient in locating the sac. The contraindications are two: Extreme youth and excessive nervousness in adult patients.

General anesthetics act by paralyzing the motor and sensory centers in the cord, medulla and cerebral cortex, leaving intact those governing the respiratory and cardiac functions. Of these agents mention will be made of ethyl chloride, nitrous oxide, cocaine, chloroform and ether.

A constantly growing use of ethyl chloride seems to have fixed its utility beyond cavil. Its field of usefulness is confined, however, within narrow limits, it being specially suitable in nose and throat operations. In point of safety, it occupies a position between nitrous oxide and ether. It is distinctive in the rapidity with which anesthesia may be induced and recovered from, the absence of dyspnea and vomiting, its pleasant effects, and small cost. The promptness with which it acts, expending its energy upon the cardiac and respiratory organs, and the possibiliy of overdosage, demand the exercise of much circumspection in its administration.

Nitrous oxide is the safest general anesthetic known, and combined with oxygen, its mortality is almost nil. Its sphere of usefulness, like that of ethyl chloride, is limited. Its special application is in the young and aged and in weak, anemic women. It is chiefly employed to hasten ether anesthesia, for which it possesses peculiar fitness, because of the similarity in physiological action. Owing to the increase in blood pressure, it is contraindicated in the presence of marked arterio-sclerosis, the apoplectic habit, and in thin-walled aneurysms. The objections to its use are the cost, the rather complicated apparatus required, the need of oxygen, and the fact that it is not always procurable.

Cocaine introduced into the medullary canal produces sufficient anesthesia, when it acts at all, for most operations below the diaphragm, and may be resorted to when both chloroform and ether are contraindicated. Unpleasant after effects have almost entirely disappeared since the substitution of tropa-cocaine. The following pathological conditions are specially suitable for intra-spinal anesthesia: Myocardial and endocardial degenerations, particularly when associated with respiratory and renal complications; in alcoholics with atheromatous arteries and fatty heart; laryngeal and bronchial obstructions from catarrhal states or from new growths; acute bronchitis and cardiac asthma. It is of questionable utility in operations upon the young, and upon nervous patients, where the urgent demands upon the personal attention of the surgeon, in allaying fears, might detract from the care necessary to the successful performance of his work.

In operations upon the intestines, particularly the upper portion of the alimentary tract, stomach

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and duodenum, and in gall-bladder surgery, where complete muscular relaxation is demanded, intraspinal cocainization is debatable. In the presence of spinal deformity, and in stout people, making the location of the spinous processes and the passage of the needle difficult, or in the presence of a skin lesion, the method would be contraindicated.

At no time since the birth of anesthesia, has there been presented to a suffering world an agent more potent for both good and ill, nor more alluring in its possibilities, than chloroform. So positive are its effects in producing anesthesia, with a minimum discomfort to the patient, that it has taken precedence over all other agents to such an extent that many surgeons have come to a predilection for chloroform without consideration of its dangers.

A study of its physiological action presents many difficulties, in as much as the findings of different observers offer such a diversity of opinion. The evidence adduced, however, from experimental study, clinical observation and autopsy findings, unquestionably demonstrates that chloroform is a direct depressant to the heart muscle or its contained ganglia, and that the early fall of blood pressure which occurs in the chloroformization is in a great part, if not altogether, due to this fact. Hence the anesthetist should thoroughly acquaint himself, by every available means of inquiry, physical exploration, urinalysis, blood examination, and a study of the personal and family history, with the presence or absence of cardiac mischief. Respiratory disorders and extensive renal lesions are as liable to compromise the issue as any grave cardiac disease. Each person to whom chloroform is given requires a specific dosage, nor does study of the patient reveal what the amount may be. Only a certain percentage of the drug poured from the container is inhaled and afterwards absorbed by the blood, and owing to the differing densities of atmospheres, rate and depth of respiration, the admixture of air, and the frequency with which chloroform is dropped, but an approximate estimate can be made of the actual amount of vapor absorbed.

The patient requires also a definite amount of oxygen, but if, as frequently happens, a close-fitting mask is applied to the face, and an excessive amount of the drug is poured on, a greater supply of vapor is furnished than is needed. The breathing ceases, with the patient in a semi-narcotized state, and at the suggestion of the anesthetizer, he takes deep inspirations, the anesthetizer meeting the emergency with more chloroform, in the hope of getting the patient quickly under. Under the enforced pressure, the chloroform is quickly absorbed from the distended lungs, and the zone of danger is entered. The patient is said to posses an idiosyncracy, and ether is quickly substituted.

On the other hand, by a free admixture of air, and a slow administration at the start, the probable amount of the drug required can be foretold with a fair degree of certainty, and the quantity increased, diminished, or withdrawn. The importance of this may be understood in view of the fact that it is in the early stage of chloroform anesthesia that death occurs. If an anesthetist bears in mind the fact that the nearer the muscular integrity of the heart is discerned the greater the safety, he will at once have a key to the lesion which may prove the basis of complications.

Sulphuric ether is primarily a heart stimulant. Its administration is usually attended by a number of unpleasant features, and while being recognized as superior in point of safety to chloroform, has not enjoyed in some sections the popularity it deserves.

Experimental study and clinical observation corroborate each other in a determination of its physiological action, reveal the cause of the undesirable qualities of ether anesthesia, as well as point out to a degree, a rational means of obviating them, and at the same time augmenting the effect most to be desired. In ether anesthesia the pulse is quickened and increased in force, a condition which is often maintained during prolonged narcosis. Concomitantly with the increase in the strength of the heart's action, the face flushes, hyperemia of the lungs and brain and internal organs ensue, the pupils dilate, profuse sweating and bronchial secretion occur, followed by a fall in temperature.

If taken in concentrated form, there is usually in the beginning, momentary arrest of respiration, accompanied by a decided sense of suffocation, the result of the irritant action of the vapor upon the upper air passages. As soon as this has passed off, the respirations are usually accelerated, as well as deepened, but as the stage of anesthesia is reached, they become slower, and if the inhalation be persisted in, they grow not only more and more infrequent, but also more shallow, until they are gradually extinguished. When death is produced by ether, the heart generally continues to pulsate after the arrest of respiration. It is evident that ether is as little a cardiac depressant as alcohol.

Patients subject to the following lesions belong to the hazardous class: Acute colds affecting the respiratory tract, bronchitis, asthma, emphysema, hypertrophied tonsils, adenoids and growths of the pharynx, larynx, goiter, brain lesions, aneurism, chronic renal disease with rigid arteries and high tension pulse, dilated right heart with bronchitis, diabetes, and double empyema.

The occurrence of ether pneumonia, from inspiratory efforts following vomiting, as well as from the chilling of the blood stream and lowering of body temperature, may in a large measure be avoided by painstaking prophylaxis, such as the avoidance of food six hours before giving ether, careful toilet of the mouth, lavage, and the application of heat during and after etherization; and nearly all the evil effects accompanying its use may be prevented by a slow administration at the start, with a free admixture of air, thus producing a tolerance of the upper air passages, permitting a more rapid use of the drug by the drop method, quickly taking the patient into complete surgical anesthesia requiring less than five minutes to reach this result.

A death rate of 1 to 3,000 in the use of chloroform, to 1 to 15,000 with ether, is calculated to cause the surgeon, whose use of the former has been largely one of expediency, to reflect seriously upon his choice, before subjecting his patient to its risks, and to stimulate active efforts looking toward a more complete elimination of the unpleasant effects of the latter.

LOCAL ANESTHESIA. *

By T. C. EDWARDS, M. D., Salinas.

Local anesthesia, by the introduction into the tissues of some neutral or physiologically active drug, has been practiced for a score of years or more. It seems, therefore, that we have had ample time to arrive at some definite conclusions as to its uses and abuses.

When the use of cocaine for this purpose was first brought to the notice of the profession, solutions varying in strength from 4 per cent to 10 per cent were used. An unwarranted and dangerous quantity of the drug was consequently introduced into the circulation and many accidents and not a few mortalities were recorded.

Naturally "cocaine anesthesia" was discarded by the major portion of the profession as being too dangerous. Careful investigators have shown us, however, that exceedingly weak solutions will give satisfactory results without producing appreciable constitutional effects. Solutions containing 1-5 per cent of cocaine and 3-5 per cent of b. eucain, have replaced the stronger solutions, and many surgeons are performing even major operations in this way.

"Making assurance doubly sure," Bodine [1] claims that we have, in morphine, a perfect physiological antidote for cocaine, and he advises a hypodermic injection of morphine 15 or 20 minutes prior to the use of the local anesthetic, thus obviating all possibility of alarming symptoms. Its use does not at all interfere with the analgesic effect of the cocaine.

Recently Braun [2] and Barker [3] have shown that the addition of epinephrin to the cocaine solution (1-150000) prolongs the anesthetic effect from 15 minutes to 3 or four hours and is perfectly satisfactory in controlling bleeding.

Pennington [4], after using various solutions in experimental work, has found that those which are isotonic with blood serum interfere least with normal cellular activity, and consequently give best results. For this reason, physiological salt solution is ideal. The solution recommended by Braun [2], Barker [3] and Pennington [4] is as follows:

b. eucain	grs. 2
sodii chloridi	grs. 11½
solution epinephrin (1-1000) ..	gtts. 10
aquæ	ozs. 3½

The whole of this solution may be used at one time, and those who use it claim equally good results from the b. eucain as are derived from cocaine. The maximum amount of cocaine, however, would be one third the amount of b. eucain. Bodine [1] uses one grain of cocaine to the ounce of physiological salt solution for the integument and for "nerve blocking," and one half this strength for subdermic infiltration.

Reports are coming from all parts of the world of the many, even major, operations done under local anesthesia, while minor operative procedures are quite common. Bodine [1] reports 300 operations for the radical cure of inguinal hernia on patients from 15 to 80 years of age. In no case was more than ½ grain of cocaine used. Gant [5] reports various operations about the anus and rectum, and says that the number of operative procedures under local anesthesia is rapidly increasing, and the number under general anesthesia is correspondingly growing less. Stevens [6] has used Gant's technic doing various operations, among them an exploratory laparotomy.

Webster's [7] paper, entitled "More Local and Less General Anesthesia in Gynecologic Operations," gives much valuable technical information to the gynecologist. The character of the work interests us as showing what can be done. He says, "Various plastic operations on the cervix, vagina and vulva may thus be carried out." Again, "Various operations may be carried out after the abdomen is opened, e. g., removal of diseased tubes and ovaries, shortening of the round ligament, myomectomy, supra vaginal amputation of the uterus, apendectomy, resection of the intestine," etc. He reports the removal of a myo-fibroma weighing 87 lbs., and remarks that but once in five years has he been compelled to resort to a general anesthetic when the work was begun under a local. Crile [8] amputates at the shoulder and Reclus has 7000 operations without a death.

The technic is simple. I will not presume to give it, as it is undoubtedly familiar to you all. In the literature of the subject, we frequently find an apology for the use of local anesthesia as if it were something of which to be ashamed. We read, "patient too weak to stand a general anesthetic"—"Kidneys contraindicate a general anesthetic"—"Heart would not stand a general anesthetic"—"Hemoglobin percentage too low to admit of a general anesthetic."

Now, if these statements are true and these unsatisfactory patients are successfully operated upon under local anesthesia (and they undoubtedly are), of what are we afraid, and what excuse can we make for subjecting patients to the dangers of general anesthesia, however slight? We all know how anxiously we watch our patients after general anesthesia, apprehensive for days, dreading complications from this source. There is none of this after the use of the local anesthetic. The functions of the body remain in continued healthy activity and contribute this much toward a successful issue.

I bespeak a more careful study of the merits of the local method, believing, as I do, that its more general use will give a lessened mortality and superior ultimate results.

1.—Med. Record, Oct. 21, '05.
2.—Med. Record, Dec. 12, '03.
3.—British Med. Jour., Dec. 24, '04.
4.—J. A. M. A., Apr 8, '05
5.—Disease Rectum and Anus, P. 671.
6.—J. A. M. A., Apr. 29, '05.
7.—J. A. M. A., Apr. 23, '04.
8.—Ricketts in Med. Record, Apr. 12, '02.

* To have been read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

THE CONSERVATIVE TREATMENT OF HIP DISEASE.*

By S. J. HUNKIN, M. D., San Francisco.

Before considering the subject proper, I desire to discuss briefly just what is here meant by hip disease. The condition here considered is a chronic, usually insidious, destructive disease of the hip, beginning as a rule as an osteitis in, or around the epiphysis of the femoral head, although it may start as an osteitis around the "Y" cartilage in the floor of the acetabulum, and very rarely as a synovitis in the hip joint; the exact percentage, however, originating in these various sites I shall not waste time in discussing, as beautiful tables illustrating this point are fully displayed in almost every text-book on orthopedics. I have said a chronic, insidious disease and this is in the main true, yet I have seen a few cases in which, clinically at least, the symptoms were unprovoked, and several in which the symptoms followed directly upon an injury, or so directly that one could not help noticing some significance of the trauma in the etiology.

While dealing with hip disease in general, my remarks are particularly applicable to the condition as found in children, and will not always be true of the disease in adolescents or adults. While not considering proportions, the great mass of these cases are, I believe, tuberculous in character and in origin, although my work is leading me to believe that possibly some begin with other infections and subsequently develop tuberculosis, and that a few may, and I emphasize the *may,* begin and end without tubercle. I am fully aware that the last will be treated by some of my friends as rank heresy and as beside the question; but so long as these cases cannot always be separated clinically, and in some instances they cannot be in the early stages, and in a few perhaps offer difficulties later, for my purpose, which is a conservative treatment of hip disease, they must be considered together. Especially in young adults the questions of gonorrheal infection, and in a few, osteo-arthritis, have not always been distinguishable from tubercle; and hip disease has been the best diagnosis that I could make. In children I have sometimes been baffled to decide between tubercle and lues, and have even considered in rare instances the question of both infections at the same time. I am familiar with the aid to diagnosis sometimes offered by tuberculin, but the definite local reaction so ably noted by other observers has not usually been noted by me, and general reaction, where I have been aware of possibly other foci, enlarged cervical and perhaps bronchial glands, has not always been conclusive; hence while the etiology is not generally in doubt, it happens that I must fain be content with "hip disease" for diagnosis.

Given then a patient with the usual symptoms of lamed function, limp, spasm, interference with the extremes of motion, especially with rotation (in this early stage with these symptoms perhaps intermittent, and with no evident deformity) how can it best be treated to conserve the joint, the limb, the health, and possibly the life? All orthopedic men, and in fact all surgeons, so far as I know, with a single exception, are firmly of the opinion that rest is the essential element; however much they may differ how best this is to be carried out, rest is accepted as the great remedy. Although at different times in the progress of surgery, men have sought quicker roads to fame and wealth, yet ever, as the pendulum swings have they come back to the safe and narrow path of conservatism, with rest as its foundation.

Early and late authorities, in modern medicine at least, are in full accord as to the value of rest at this stage. Whitman (2d edition, page 257) says: "At one time early operation, even excision, was justified on the plea that the disease might thus be eradicated, but now it is known that in nearly all cases other tuberculous foci exist in the body, and the functional results after these early operations are far inferior to those attained under conservative treatment." Hilton (page 359): "Hip disease is not so commonly scrofulous as supposed, or if scrofulous is curable by rest."

"I may say that I have never seen a severe case of hip disease where the patient has not improved by proper rest."

Brodie (4th edition, page 94): "I have known cases in which rest alone was sufficient to produce a cure. In all cases the symptoms are alleviated by keeping the limb in a state of the most perfect quietude, and this is a very important if not the most important circumstance to be attended to in the treatment." This is about the most positive statement in Brodie, a work written at a time when the most active surgical interference was in absolute sway.

How best may we give rest to the lamed joint? The work done by a joint, it seems to me, can be resolved into two forms; motion and weight carrying, or friction and pressure. Attempts to combat this are made in various ways, and these also can practically be resolved into those which are calculated to lessen or prevent pressure—that is traction (oft called extension) aided by what Whitman calls stilting, during locomotion; and second, immobilization, which in its efficient application gives rest to motion, or the work due to friction between the joint surfaces. It is to me still an open question whether the rest secured by traction as *usually applied* or rather, as generally maintained, is of especial value in the majority of cases, except from the immobilization incidentally obtained. While in some instances I am able to secure relief from pain and spasm with properly applied traction, after attempts at immobilization have failed, yet in the majority of cases the reverse has been true, immobilization giving better and quicker relief than traction; and I feel that my failures always to get the desired relief were due to my failures to secure the desired immobilization. The tendency of man is to follow the direction of least resistance, and when many attempts are necessary before success is obtained, one finds it much easier to change amounts

* Read at the Thirty-sixth annual meeting of the State Society, San Francisco, April, 1906.

of traction and direction of pull, than it is to change splints. It has appeared sometimes, however, that after a vicious circle of "spasm, pain, spasm," has been for some time established, that traction has controlled the muscle-spasm more readily than splinting; but this in my experience is rarely the case; better than either, however, in the difficult cases, is both—a small amount of traction added to immobilization.

Hilton, again, says that to favor ankylosis the joint surfaces should be kept easily and steadily in contact, and it seems to me that it is also the best plan to promote repair and favor return to the normal. Gibney: "Whatever ankylosis occurs in a joint subjected to immobilization occurs by reason not of the immobilization, but of the nature and intensity of the inflammations and of the inefficiency of the apparatus employed." This observation of Gibney is to me a truism, and holds in my opinion in recovery from injuries of joints, as well as from the disease.

While arguing that it appears more necessary to limit or prevent motion in the acute stages, I do not wish to be understood as believing that pressure work is of no moment—increased pressure, jars, even the small and repeated traumatisms of locomotion, are often badly resented in the acute stages and should then be regularly prevented. It does not appear to me that arguments directed to show that traction of a proper amount applied continuously lessens pressure in the joint and perhaps separates the joint surfaces, are well chosen in this relation. We are not considering normal pressure, but are dealing with greatly increased jerk-pressure; what older patients describe as spasmodic blows due to the head of the femur being driven into the acetabulum by spasms of the muscles. The spasm is caused by efforts of nature to immobilize the joint, in order to prevent the irritation of motion between the joint surfaces. Immobilization should, and usually does, control the spasm and prevents the abnormal forcible pressure and secures rest.

Accepting rest as surgically the essential feature in the treatment of hip disease, it is proper to ask what measure of rest is necessary to promote repair. Is absolute rest necessary or even advisable, and if so, for how long? Located as the hip is, with the body balanced upon the femoral heads in the erect posture, the merest sway of the body is followed by changes in the position of the joint structures; in fact scarcely a movement of the trunk can be made in any posture without motion in the hip. Absolute rest for any prolonged period is impracticable in the stages when the disease is active, hence at this period we try to secure rest as absolute as can be obtained, and one naturally adds traction to his attempted immobilization, in an effort to obtain it as nearly as possible. Fortunately, however, this rest absolute is not an essential feature for more than a few weeks at a time, and perhaps not at all in the majority of cases. I am being steadily forced to believe that entire freedom from work over a long period is not essential, and probably not desirable, as a routine measure. I doubt whether work in both its phases, and controlled well within the limits of pain and spasm, is not often an advantage, except in the very acute stage or in rapidly progressive cases. Of course one has ever a doubt as to where these limits are, and one naturally tries to confine the work well within the questionable bounds.

Later in the disease I think it probable that motion within the limits of pain or spasm, particularly in a direction away from, or contrary to the natural deformity trend, favors repair and return to functional ability.

On the contrary, one should be chary in allowing motion towards the usual deformity positions until convalescence or repair is assured. Immobilization is attempted in a position of full 180 degrees extension. In the early stages of disease, neither abduction nor adduction is allowed, nor rotation inwards nor outwards; later, extension with abduction and control of rotation, but at all times and in all circumstances, full extension is imperative. I esteem this position of full 180 degrees extension, as one of the most important features in the conservative treatment of hip disease, and believe that the failure to secure this position is the prime cause of deformity and shortening. It is held by many orthopedic gentlemen that shortening is greater in hips treated throughout by splinting, than in those treated with traction. While this is perhaps true in children when fixation is attempted with the joint more or less flexed, it has not appeared to me when full extension has been secured. I was led to this opinion originally by noting the direction of the erosion of the acetabulum in cases presenting much shortening. Treatment can then be reduced in the majority of simple cases, at least, to immobilization in the full extended position, arranged in such manner as to prevent the usual rotation and adduction deformities, and all well within the limits of pain and spasm.

How long is the child kept in bed? The child should only be confined to bed when it appears necessary for its general condition or when it is impracticable to secure local rest, within the given limits, without it—that is, the child is never confined to bed when its general vitality allows it to be up and the requisite rest to the joint can be obtained. Outdoor life is a very essential feature in repair of tuberculous infections, and theorise as we may, under circumstances that are within our control; for practical purposes, a child confined to bed is, to a large extent, confined to the house, and house dwellers are tubercle breeders. In theory a child confined to bed for the treatment of tuberculous joint lesions, spends a great deal of time out of doors, or rests in front of an open window. This is all well understood in theory, but in practice it is usually a farce, and the child's average of full sunlight and free, unconfined air is generally very low, even with the best intentions of its parents. Hence the rule, no confinement when symptoms can be controlled without confinement, and the majority of children go to bed nights as healthy children do. I generally have them rest more than other children and lie down for a couple of hours out of doors in the middle of the day, and this is readily secured.

The method of securing immobility and rest is of no importance and must of necessity vary with different men, and their skill with mechanical appliances. I usually use plaster-of-Paris, and ship the children with confidence all over the coast—from Alaska to San Diego—and have at present a girl at each extreme. It subserves a good purpose with me. Ofttimes I use a modified Phelps splint—the material amounts to no more than the paint in a picture, but it is a good splint of whatever style of material it may be when it is applied in such a manner as to maintain full extension, prevent deformity and secure rest sufficient to control pain and spasm. I have devised a plaster splint which answers this purpose to a great extent—its character, its comfort, its approximate cleanliness, its safety, and its efficiency, can be seen in many of the children presented before you. Surely when disturbing symptoms cannot be controlled, with the child around, we naturally confine the patient for a few days or perhaps weeks, until the acute sensitiveness has gone; but at all times the great advantage of out-door treatment is kept uppermost in mind. So much for a child in whom the disease pursues a simple course.

But what when the case is complicated, as a very large percentage (50 per cent to 60 per cent in late years). are complicated with abcess? This in my opinion does not call for any especial change in the plan of treatment; the child is allowed to get about as usual—a carefully fitted splint or bandage gives support to the abscess and the child is watched a little more carefully. If the abscess rapidly increases in size, or is of moderate size and remains for many months, it is aspirated at a point rather remote from the dependent or thinned area. This procedure is repeated whenever necessary, a definite attempt being made in this manner to prevent the ulceration of the abscess, and this succeeds in a large number (in private work about 50 per cent), and in most of the remainder the opening is delayed long enough for nature apparently to erect a barrier between it and the joint, so that when ulceration happens, there is no direct path between the diseased bone and the outer world, and the danger of secondary infection of any extent is not acute. Often in spite of our efforts, the abscess ulcerates and discharges, frequently using as a portal an aspirating puncture, and it may be necessary to keep the child in bed a week or two, more to favor cleanliness, to control and confine the discharge within esthetic bounds, than for danger to life or limb. No meddling with the wound is permitted, only sterile dressings (changed often enough to prevent soiling), being used. As soon as the discharge has lessened enough to allow of easy and safe handling the child is up and around, the future history usually being that after a few weeks the discharge is reduced to a few drops daily, and within a few months it stops and the sinus closes. Perhaps it may later reopen (but usually if proper care is taken it does not) and the case usually goes on as before, with no doubt more chance of eventual ankylosis.

But when greater destruction is present, when the joint is destroyed, when radiograms show apparently the whole epiphysis has been disorganized and no joint line can be distinguished, when the head of the bone and the upper rim of the acetabulum have been eroded, when clinically we find the head of the femur on the dorsum of the ilium, and a large abscess complicates the pathological dislocation, when the child has been lying with its hip in a position of right angle flexion and 25 degrees adduction for weeks, screaming at the slightest movement, surely now resection is necessary. No, even now my experience teaches me that mutilating operations are rarely necessary; that the conservatism that conserves the bone, still offers by far the best chance of recovery with a useful limb. We are in the habit of replacing the head of the femur at the acetabular site, and fixing it there with the leg in *full extension* and about 30 degrees abduction, with a plaster spica. We prefer to establish position at once under an anesthetic, taking time enough to easily secure 180 degrees extension. In place of the rapid relocation we rarely put the child recumbent, and apply traction in line of deformity, and gradually get replacement by altering the line of traction as the tissues yield; but of late years I prefer the rapid relocation at one seance and think I get better position. We then keep the child in bed for a few weeks, changing the splint often enough to keep track of the abscess, and later get the child up and out on crutches. The argument against this procedure is that forcible re-position is likely to open up new paths into the general circulation for tuberculous products. The argument to me is not well taken, for it is very questionable, whether so many more direct paths would be furnished by proper force applied for a few minutes only, and followed by approximate rest, than by the slow, and perhaps spasmodic grinding of the eroded head over the edge of the acetabulum for an unknown period; and again, we are not considering the disturbing of a healed focus of tubercle, but the better course to pursue when the two surfaces are exposed and perhaps weltering in tuberculous detritus.

I am well aware that advocacy of such a conservative course, lays me open in the house of my friends to a charge of being "conservative mad," and I am free to admit that such a plan a few years since would have appeared to me unsurgical and dangerous; yet my experience has taught me, in the case of small children at least, that no surgical plan is so bad and fraught with so much danger, both present and future, as a plan which holds any radical operation as its base. Time was when we resected such joints—when we operated early and often, aye long before the children reached the condition now being considered, and the remnants of the children who are left haunt us still. The fact is that usually after either of the procedures advocated, the case goes along more or less gently, the abscess gives us later more or less trouble and in two or three years the patient recovers with a very useful although perhaps ankylosed hip. I do not mean to say that all of the children treated in this manner recover. Some children melt down before

tubercle, like well dried tinder before the glowing spark, but I do believe that a far greater proportion get well, and these have longer, abler legs, when treated in this manner than when the joint cavity has been invaded and the epiphysis is opened up to risk of infection by the surgeon. A certain proportion die of tuberculous meningitis, but I do not know that any larger percentage escape this fate than after the knife and scoop of the operative surgeon; but of this I am assured, that secondary infections of joints, that open sinuses discharging for months and years, that septic fevers, that amyloid degenerations, that the train of brownie, elf-looking caricatures of humanity, are more frequent in the wake of operative surgeons than when mutilating operations are carefully eschewed in growing children.

So far I have spoken of conservative procedures in the treatment of children with bone tuberculosis, advocating non-intra-articular meddling in its widest sense as opposed to radical operative plans, as offering the best and safest treatment to conserve life and limb and promote early recovery; but in children of tender years even this aim is perhaps overshadowed by the question of future growth and development.

Several years ago while addressing this society on the matter of the excision of joints I cited the case of a young woman who had come into my office some time after an excision, wearing a sixteen-year-old leg on one side and an eight-year-old leg on the other. This made a decidedly grim impression on me and ever and anon still old excision cases come before me, and in the great majority of them, in whom the excision was made in early life, the end result is decidedly bad, both from an esthetic as well as utilitarian aspect, and the younger the patient at the time of the operation, the worse the termination. In fact, speaking of the result as bad, rather feebly expresses the condition found after the lapse of six to ten years. Surely the last end of these patients is worse than the first, and is not to be compared to the end result ordinarily obtained in children who have had the benefit of modern sanitary, careful, outdoor treatment for tuberculosis and whose hips have at the same time received efficient protective care.

Why so great difference exists against operative surgery which has made such immense strides along other lines is hard to fully understand. Why an epiphysis which is only interfered with by the contiguity of tuberculous foci, or is perhaps attacked in part by the growth of inflammatory or tuberculous products should still more or less perfectly functionate, or even rarely become stimulated to over-growth is readily seen, but why an epiphyseal cartilage, which is so involved and broken down as to be apparently practically separated from the organism by an area of rarified cells, filled with cheesy deposits, or with granular, fatty, yellowish material, with no evident blood supply—why such an epiphysis should be more valuable to the development of the limb, in situ than in vitrio, is not very apparent ot me; yet I am firmly of the opinion that the growth of the leg goes on much better with the rotten-like head and neck in place, than when it is in a jar. For future growth and development it appears that a disorganized tuberculous epiphysis is far better than no epiphysis.

To what extent should the ultra conservative protective—rest treatment—be pushed? I am satisfied that it is safe and advisable to a far greater extent than is usual in this country and to far wider limits than I thought possible even three years ago. I have ever been seriously asking myself the question, of late, whether in the large majority of instances of hip disease in children who are well within the age limits, if it is not the better part of wisdom to refuse resection in all cases, considering the possibility of ablation, rather than resection, for the cases in which conservative treatment added to general antitubercular treatment had failed. I cannot answer this question positively, but events are transpiring which are sensibly pushing me nearer an affirmative reply; holding closely the belief, however, that the fight is not lost because there is a large abscess in or around the joint, and the bone structure has become somewhat disorganized.

Lately there has ben offered for your consideration by an earnest, eminent gentleman of this city (and whose very earnestness and honesty make me timorous in dissenting), a somewhat new operation for the cure of hip disease—a simple procedure, which may however make its advocate great tomorrow. A simple operation, consisting of a mere tunnelling of the trochanter up through the neck into the head of the femur and into the midst of the diffused granuloma; a scooping gently in the dark, and what appears to me to be a mild invitation to the tubercle baccilli to use the tunnelled path, and the thing is done. Like the swine in the parable, the bacilli rush down the narrow path into the sea and are choked—in a few days there is a discharge of pus, the tract closes up rather promptly and the child goes on rejoicing, having been saved at the least years of suffering and confinement. The gentleman in support of his contention offers three cases and however we may differ as to the diagnosis in two, the third is to me typically a child with tuberculous hip disease, and I cannot explain it. If tuberculous (and there was unfortunately no bacteriological nor inoculation experiments as evidence) the tubercle may yet claim its own—time alone can tell. Tuberculous bone in my experience has not acted nor healed in this manner; yet one must not hastily condemn, out of one's ignorance.

We all remember how the simple operation of appendectomy, for the cure of the hydra-headed inflammation of the bowels was scouted by many, and when I look back, I wonder at my temerity in opposing the idea. The operation, while original with its proponent here, is not exactly new—it was done by many men before, notably by McNamara, and although I have not performed it, I saw Sherman make the operation at least ten years ago. The merits of a focal operation of any kind versus a resection are very evident. Leaving the matter of interfering with the epiphyseal line out of the ques-

tion, how is the focal point to be determined? The radiogram in my judgment does not point it out (very rarely can a focus be noted on a plate) but only shows a diffused cloudiness and loss of outline as evidence of the disease, and not infrequently the process begins in the acetabulum; generally we are not able to distinguish between them, and to cut down on every child who presents symptoms of hip disease and hollow out the head and neck of the femur, interfere with the epiphysis and pave the way for a secondary infection into the midst of a tuberculous infiltration, when at all other times we look upon such a secondary infection as a catastrophe to be avoided at many hazards—and all this in a child in whom a focus cannot be located, and which may not be in the femur, and in a child who is winning against tubercle and isolating it, is to me rather serious and dangerous surgery.

EFFECT OF PROPRIETARY LITERATURE ON MEDICAL MEN.

By N. S. DAVIS, M. D., Chicago.

The printed matter issued by the manufacturers of proprietary and exclusive medicines is as various as are their products. The smaller part has a high scientific value; the larger part is more or less clever advertisement of wares for sale.

Naturally, as a monopoly of a good thing is sure to bring wealth to the manufacturer, almost every drug maker endeavors to place on the market one or many specialties of his own. To insure his exclusive right to manufacture them, it is usual for him to patent the process or trademark the name.

The clever manufacturers employ able men of science to test with care the physiologic and therapeutic actions of their drugs, and these reports, when given to us in full, are of genuine value. In subsequent advertising, however, the results obtained are summarized, and often so skilfully that disagreeable effects are lost sight of or minimized. Moreover, these summaries are imbedded in a mass of optimistic writing by the advertiser or by physicians who record their impressions; not observations made with the accuracy which science demands.

Therefore, even the best of this printed matter, of which we all receive so much, is not to be trusted. On the other hand, so many things of value first come to us in this way, that we cannot reject it all.

Often, unfortunately, rank nostrums, disguised as chemicals of definite composition, are described in print that is a perfect imitation of the best class of advertising matter which I have just described.

That we may not be duped, it is necessary to know by reputation the chemists who vouch for the character of the drugs, also the reputation of the pharmacologists and clinicians who test their action.

The remainder of nostrum literature consists of descriptions of the impressions of various physicians as to the therapeutic effects of mixtures, which any clever pharmacist could duplicate if given the opportunity. The nature of the remedy is hidden, as a rule, in the brief statement that it is an especially pure preparation of some well-known drug. Although many therapeutic virtues are claimed for it, it is often inert or so potent as to be dangerous, unless its nature is fully understood. Such mixtures never should be used. If all members of the medical profession would absolutely refuse to prescribe ready-made mixtures, either in liquid, pill or powder form, they would destroy one, if not the greatest, hindrance to successful and rational therapy.

In the first place, it is impossible properly to adapt the dose of drugs to individuals if one dose is given to all. Moreover, ready-made prescriptions lead to slovenly therapeutic reasoning and practice. For instance, a mixture of digitalis, strophanthus and nitroglycerin is often given when the effects of the latter are not wanted, though those of the former are, because the giver is accustomed to dispense the combination whenever a cardiac tonic is needed.

The prescription recently copied by THE JOURNAL of the American Medical Association[1] from the original column of another and advocated by its author as sovereign in pneumonia illustrates a common ignorance of the composition of widely advertised and used proprietaries, and an inclination to use them as though they were definite chemicals, not mixtures. The prescription to which I refer contains, first, a fair dose of acetanilid; second, sodium bicarbonate, and, third, bromo seltzer. The writer evidently did not know that the last also contained a fair dose of acetanilid, and that in his combination he was giving a large dose of this powerful drug. Many physicians use nostrum mixtures at first because the sample is at hand, and later because it is easily dispensed, and the practice becomes a habit.

We can not blame manufacturing chemists for finding new things or advertising them as cleverly as possible. That they and the nostrum vendor are surprisingly successful in selling their wares is largely our fault.

Proprietaries are used in enormous quantities. All medical men are, to a greater or less extent, employing them; and it is skillful advertising which has made this so.

Assuredly, it is legitimate practice to try a new drug or chemical which promises to be useful, for if we did not there would be no progress in therapeutics. Unfortunately, a prompt recapitulation of results is rarely made, and useless drugs are not discarded as they should be. However, sometimes this does happen, notably in the case of Bergeron's treatment of tuberculosis and later that of tuberculin and the *x*-ray. In a few months the whole medical world was apprised of the real value of these remedial agents.

We should see to it that all drugs are similarly weighed and labeled with their true value. Even our pharmacopeia contains inert and useless drugs retained because still prescribed, and for which, therefore, a standard must be established.

* Reprinted from the Journal A. M. A.

Medical men are too prone to accept new drugs as they accept new ideas, because they are new, without sufficiently testing them or demanding the approval of recognized authorities.

I make a conservative statement when I say that on the desks of each of us from three to ten advertisements such as I have described are placed daily, but the education of medical men in therapeutics by manufacturers does not stop here. Drummers are about as numerous as circulars, and each gives a brief, carefully prepared lecture on the wares which he carries. A lecture which is often interesting and if it told the whole truth would be instructive. Unfortunately, only that which will help to sell the goods is told. It is often surprising, too, how ignorant the detail man is when questioned as to his wares on other points than those in the lecture which he has committed to memory.

It is not surprising that medical men have surrendered to manufacturers and accept their teaching, since their goods are advertised in almost every medical journal and not infrequently well exploited in so-called original articles in these publications.

Manifestly, the condition in which we find ourselves must be changed. That this may be accomplished we must, first of all, recognize the disease, so to speak, of which we suffer. Second, we should insist that the teaching of pharmacology and therapeutics in medical schools be confined to the drugs of the pharmacopeia. Third, we should take more interest in the pharmacopeia and demand that it contain only drugs of genuine worth, and that it be revised often enough to insure the admission of all valuable new ones. Let the pharmacopeia be made a standard for both the medical and pharmaceutical professions.

Lastly, a greater amount of pharmacologic and therapeutic research should be stimulated. During the second and third quarters of the last century a very large amount of knowledge of this kind was accumulated by painstaking research; but in the last twenty-five or thirty years the attention of those medical men who have been contributing to our knowledge has been centered almost exclusively on etiology, bacteriology and pathology.

It is not surprising that in proportion as the most original minds among us neglect the field of pharmacology and therapeutics the manufacturer seizes this opportunity to instruct us. For he can do his teaching in his own way almost unchallenged by authorities.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The next meeting of the Mississippi Valley Medical Association will be held at Hot Springs, Arkansas, November 6, 7, and 8, under the presidency of Dr. J. H. Carstens, of Detroit, Mich. The annual addresses will be delivered by Dr. Frank Parsons Norbury, Jacksonville, Ill., in Medicine and by Dr. Florus F. Lawrence, of Columbus, Ohio, in Surgery. Dr. Norbury has chosen for the subject of his address, "Clinical Psychology," and Dr. Lawrence will discuss in his address, "Surgical Principles and Theories." In addition to these addresses there will be the annual address of the President, Dr. Carstens.

A partial list of the papers promised is published herewith. Communications regarding papers should be addressed to the Secretary, Dr. Henry E. Tuley, 111 W. Kentucky Street, Louisville, Ky.

Elaborate arrangements have been made by the local profession of Hot Springs to entertain the visiting doctors and their wives, the meeting being held at one of the largest hotels, which will be specially opened in advance of the season to accommodate the Association. A cordial invitation is extended to every physician in the Valley to attend this meeting for which a large number of interesting and valuable papers have been promised.

SANTA CLARA COUNTY.

The meeting of the society held July 18, 1906, in the Auditorium of the Y. M. C. A. Building, San Jose, was one of the most successful ever known to our society. The following members were in attendance: Asay, Hervey, Fraser, Wm. Simpson, Harris, Park, Anderson, Trueman, McMahon, Goodrich, Jessie Simpson, Newell, Napp, Keith, A. S. J. Smith, Jayet, Cooper, Brown, Wagner, Beattie, Grissim, Burns, Whiffen, Cothran, Miller, Lyons, and Osborne.

The regular order of business was suspended for the purpose of at once proceeding to the special lecture of the evening which was delivered by Dr. Dudley Tait, of San Francisco: Subject, "Some New Problems in Lung Surgery." The lecture was illustrated and held the closest attention of the members throughout. At its conclusion Dr. Tait was warmly congratulated and the society tendered him a rising vote of thanks as a token of their appreciation of the evening's entertainment. Owing to the absence of Dr. Snow, of special committee on the subject, the discussion of the subject of reduction of fees for examination for Life Insurance Companies was ordered to be the special order of business for next regular monthly meeting. This meeting will be held on Wednesday evening, August 15th, 1906, at the St. James Hotel, San Jose, at the hour of 8 o'clock, sharp. In addition to the special order Dr. George Lee Eaton of San Francisco, will present an illustrated paper on "The Treatment of Pyelitus and Ureteritis by Uretheral Catheterization and Lavage, and Microscopic Urinary Diagnosis."

Members of the council are requested to meet in session prior to the meeting for the consideration of important business. Councillors will please report to the President not later than 7:45 p. m.

ANTRIM EDGAR OSBORNE,
Secretary.

Please remember that the office of the State Society, and of the State Journal, and of the Secretary, Dr. Philip Mills Jones, is now located at

2210 Jackson Street,
San Francisco.

STANDING OF INSURANCE COMPANIES.

The following table has been compiled by the San Francisco "Examiner" and was published in its issue of August 27th. While it may not be absolutely correct, it probably gives a very good idea of the relative standing of the various insurance companies at the time of publication, and should be carefully studied by every physician who carries insurance upon his property:

Class A—The companies in this class are credited with fair and honorable settlements of their San Francisco losses.

Aetna of Hartford.
Liverpool and London and Globe.
California.
Royal of Liverpool.
Queen of America.
Home of New York.
Springfield.
Connecticut.
Continental.
New Zealand.
Scottish Union and National.
Northern of London.
Phoenix of London.
Sun of London.
New Hampshire.
Hartford.
Citizens.
New York Underwriters.
Atlas.
North British and Mercantile.
Law Union and Crown.
Union of London.
London Assurance.
Pennsylvania.
Insurance Company of North America.
Alliance of Philadelphia.
Niagara.
Pelican.
German-American.
German Alliance.
Glens Falls.
Michigan.
Teutonia.
American Central.
Mercantile.
St. Paul.
Agricultural.
Phoenix of Hartford.
Williamsburg City (on policies that do not contain the earthquake clause.)

Class B—This is the list of the "barbers." Their settlements range from 57 cents on the dollar up:

London and Lancashire.
Orient
State of Liverpool.
English-American Underwriters.
Caledonian.
Caledonian-American.
Scotch Underwriters.
Royal Exchange.
American of New Jersey.
Fire Association of Philadelphia.
Philadelphia Underwriters.
Phoenix of Brooklyn.
Prussian-National.
Delaware of Philadelphia.
Rochester-German.
National of Hartford.
Providence-Washington.
Western of Toronto.
British-American.
British-American of New York.
Northwestern-National.
Northwestern Fire and Marine.
Austin of Texas.
Eagle.
Assurance Company of America.
Aachen and Munich.
Hanover.
Hamburg-Bremen.
Svea.
National Union of Pittsburg.
Concordia.
Franklin.
Germania.
Federal.
Queen City.
United Firemen's.
Buffalo-German.
Camden.
Globe and Rutgers.
Security of New Haven.
Westchester.

Class C—The companies in this class offer settlements below 75 cents on the dollar:

New Brunswick, 70 cents.
Girard, 70 cents.
Milwaukee Mechanics, 70 cents.
North River, 65 cents.
German of Freeport, 60 cents.
German-National, 60 cents.
American of Philadelphia, 50 cents.
German of Peoria, 50 cents.
Nassau, 50 cents.
American of Boston, 40 cents.
New York of N. Y., 33 1-3 cents.
Dutchess, 30 cents.

Class D—Companies on the waiting list. These include (a) those that while denying liability are considering loss-claims with a view to compromise settlement, (b) those that refuse to recognize liability and will not pay one cent, (c) those that have postponed settlement pending financial negotiations.

(a)
Commercial Union of London.
Commercial Union of New York.
Alliance of London.
Palatine.
Indemnity.
(b)
Rhine & Moselle,
Transatlantic.
Austrian-Phoenix.
North German of Hamburg.
North German of New York.
Williamsburgh City (on earthquake policies).
(c)
Calumet.
Fireman's Fund.
Home, Fire & Marine.
Pacific Underwriters.
Equitable.

Companies in the hands of a receiver:

Traders.
Security of Baltimore.

CALIFORNIA PUBLIC HEALTH ASSOCIATION.

The next meeting of this association, which, as our readers doubtless know, includes all members of various boards of health and all health officers in the state, will be held at Alum Rock on October 12th. The members will gather in San Jose and go to Alum Rock sometime in the morning in a special car placed at their service by the railway company. The subject for discussion is a particularly fitting one, Mineral Springs of California; and after a luncheon at Alum Rock Springs, this subject will be discussed. It is hoped to make this meeting a particularly pleasurable one, as it will be somewhat in the nature of a picnic.

INSURANCE FEES FROM THE POLICY HOLDERS' STANDPOINT

Mr. Chas. A. Peabody, Pres.
Mutual Life Insurance Co. of New York,
New York, N. Y.

Dear Sir:

Your communication of July 2d received with pleasure. The various changes, looking to improvement and economy in the direction and management of the company, are indeed very pleasing from the standpoint of the policy-holder. I wish, however, to call your attention to one conspicuous blunder that has occurred, with which I am familiar. Either through your permission or direction, the medical directors have, under the guise of economy, reduced the fee for medical examinations from an already small sum ($5.00) to $3.00, thus striking a serious blow at the foundation and stability of the company. Mind you, I am now speaking as a policy-holder and not as a medical examiner, for I have already served notice that I would not examine for $3.00. You have tried to place one of the greatest professions on the level of the dime counter of a bargain store.

Of course, you will still be able to get your examinations made—that probably would be the case if the fee were made $1.00 instead of $3.00,—but I insist you will get the labor of a poorly-paid employee. You know what that means. You will get just $3.00 worth and no more; you will not get the best there is in the profession.

You know also, that the doctors form no inconsiderable number of your policy-holders. Your agents have always tried to insure the doctors first, and I believe the physician has, as a rule, freely insured.

I have, at four different times, taken a policy with the "Mutual," because I believed it a good thing to do, and also because the agent was always on hand to urge the wisdom of the move.

Now you can rest assured that the physician is about like other people—he is going to trade with those who give him the best return for his services. Also, he will always be under the firm conviction that the life insurance company that pays the highest medical fee (at least that pays a reasonable fee) is the safest company.

I am, my dear sir, sincerely yours,

A. S. P.

GERMAN HOSPITAL.

To the Editor of the State Journal: In the June issue of the Journal, at page 157, there appears an attack upon the German Benevolent Society of San Francisco, which I trust you will permit me most emphatically to resent.

You say: "The information reaches us directly, but not officially, and there may be some error." There is "some error," and I desire to call it to your attention, though you could have obtained the exact truth by going to headquarters. Apparently you have been lead into mixing up two items of news. An attempt was made by the Directors of the German Benevolent Society, when they were dazed by the late catastrophe, to cut down expenses in every way, as a wise economy. They decided to cut down the salaries of the visiting physicians to half the customary amount, but upon protest from the staff, this ill-advised measure was abandoned. It was finally agreed that after August 1, 1906, no salaries should be paid, but that "hospital patients" should be classed as though they were the private patients of the respective member of the staff, and should pay him as would any of his own private patients. By "hospital patients" I mean such persons not members of the German Benevolent Society as come voluntarily to the hospital seeking medical or surgival care, and are without their own physician or surgeon. Previously, such patients' fees were paid to the hospital; now they are paid to the staff and the result is entirely satisfactory.

You say, furthermore, of the German benevolent Society, "one of the richest and therefore most dangerous contract organizations on the Pacific Coast." You are laboring under the same misconception in this respect, as so many do, inside and outside of the profession. The German Benevolent Society is not a rich concern by any means; all that it has is the land and the hospital thereon. This land is not income-producing; the hospital is maintained for the benefit of the members, and no surplus income accrues to the Society from the hospital; money derived from the payments of members goes either to the hospital, or is used to assist needy Germans in buying bread and clothes, paying rent, transportation, etc. When the hospital became obsolete and a new and modern edifice was a necessity, money donated by bequests to the Society (small sums only, notwithstanding the large number of wealthy Germans in San Francisco) was put aside and thus a little more than $100,000 was accumulated as a building fund. Additional money was raised through a mortgage on the land, and building commenced. When the hospital is finished, the German General Benevolent Society will be in debt—far from being "one of the richest organizations."

It will be of distinct advantage to yourself and to your readers to know just a little something definite about this truly great benevolent organization, the German General Benevolent Society of San Francisco. It was started by broadminded generous German pioneers in early days for the assistance of needy emigrants from the Fatherland, and soon a hospital was added for those who needed medical assistance as well. For decades this Society has done noble work in carrying through sickness many a poor person and by tiding over many a family, which otherwise would have become a public burden!

At first the contributors did not ask for any return for their money; they paid to help others. But gradually the broad spirit of the pioneer waned, the people became more egoistic, more commercial, and many took advantage of the hospital and attendance, who certainly should not have done so. At the same time, people with small earnings were urged to join the society that in case of need they would have a place where they could find medical assistance without being compelled to ask for charity.

Later on, some smart directors wishing to increase the income of the Society devised the plan of taking into the folds of the Society others than Germans, as so-called subscribers; besides, the status of the paying patient (non-member) was changed. Formerly, the attending staff member received pay from these for services rendered, but with the change mentioned this practice was abolished, the physicians were paid a fixed salary, and the patients were charged only a maintenance fee, which included everything! This was avowedly done for the purpose of inducing patients to enter the hospital.

During the entire time of my connection with the hospital, there has been an incessant struggle between the directors and the visiting physicians. It has been our endeavor to make the "hospital patients," i. e., those who are neither members of the Society nor our own private patients, pay for physicians' attendance. At last this object has been secured, and "hospital patients" will be treated as private patients of the visiting staff. That is, they will pay the hospital for maintenance only, according to accommodations, but as far as a fee for medical, surgical, etc., attendance is concerned, "hospital patients" will have to make their own terms with their respective physicians.

This arrangement eliminates the objection, hitherto made, of unfair competition on the part of the German Hospital. Furthermore, it secures to the

visiting staff just compensation for the services which they render to the members of the Society, for it brings to them many patients which they otherwise would not have ("hospital patients").

There still remains the objection against "contract practice." Sure enough! This matter was threshed out a few years ago, and if my memory serves, we all agreed at that time that it was physically impossible to abolish all forms of contract practice; the best that we may hope to do is to curb it within just limitations.

This is exactly what we of the German Hospital staff are trying to do. We hope and believe that the next move will be to drop all "subscribers," and then to have the privilege of free attention at the hospital limited to deserving members. A fee should be permitted even if the patient is a member, if his circumstances are such that he can afford it, and especially if he is able to pay for a private room. In other words, we want to go back to the plans of the early days, before the time when abuses crept in. The assistance of our medical brethren will be most welcome, and we believe that with such aid, the necessary changes can be made that will put the new German Hospital in the front rank of hospitals in the Western Hemisphere, and place it on a footing that will be absolutely unobjectionable in any way.

Very truly yours,
H. KREUTZMANN, M. D.

PUBLICATIONS.

The following publications have been received by the Journal, some of them having been sent in for review and others for the library. Our thanks are extended to the publishers, and we beg to advise them that many of the works are now in the hands of reviewers and that the result of their efforts will be published as soon as possible.

Eczema. By Samuel Horton Brown, M. D. P. Blakiston's Sons & Co., Philadelphia.

Diseases of the Nervous System Resulting from Accident and Injury. By Pearce Bailey, A. M., M. D. D. Appleton & Co., N. Y.

Infection, Immunity and Serum Therapy. By H. T. Ricketts, M. D. The American Medical Association Press.

The Operating Room and the Patient. By Russell S. Fowler, M. D. W. B. Saunders Co., Philadelphia.

Consumption and Civilization. By John B. Huber, M. D. The J. B. Lippincott Co., Philadelphia.

The Practice of Pediatrics in Original Contributions to American and English Authors. Edited by Walter Lester Carr, A. M., M. D. Lea Brothers & Co., Philadelphia and New York.

A Compend of Operative Gynecology. By William Seaman Bainbridge, M. D., and Haven D. Meeker. The Grafton Press, N. Y.

The Diagnosis of Living Matter. By Jacques Loeb. Columbia University Press, N. Y.

Golden Rules of Surgery. By Augustus Charles Bernays, M. D. C. V. Mosby Medical Book Co., St. Louis.

Text Book of Diseases of Women. Penrose. W. B. Saunders Co., Phila.

Clinical Diagnosis. Ernest Boston. W. B. Saunders Co., Phila.

Practical Surgery. Nicholas Senn. W. B. Saunders Co., Phila.

The Treatment of Fractures. Scudder. W. B. Saunders Co., Phila.

Text Book of Obstetrics. Webster. W. B. Saunders Co., Phila.

Practice of Medicine. Eichhorst. W. B. Saunders Co., Phila.

Nervous and Mental Diseases. Church and Peterson. W. B. Saunders Co., Phila.

A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa. By George Whitfield Overall. The Rowe Publishing Co.

Clinical Bacteriology and Hematology for Practitioners. By W. D'Este Emery, M. D. P. Blakiston's Son & Co., Philadelphia.

The Prophylaxis and Treatment of Internal Diseases. By F. Forchheimer, M. D. D. Appleton & Co., New York.

The Eye and Nervous System. By Wm. Campbell Posey, A. B., M. D., and Wm. G. Spiller, M. D. J. B. Lippincott Co., Philadelphia.

The Autotoxicoses Their Theory, Pathology and Treatment. By Heinrich Stern, Ph. M., M. D., New York, Professor of special medical pathology and therapy in the Colege of Physicians and Surgeons, Boston; director of the Institute for Medical Diagnosis and Research in the city of New York, physician-in-chief, Philanthropin Hospital in the city of New York; pediatrist and pathologist Misericordia hospital and the Hartsdale Infirmary; consulting physician Metropolitan and Red Cross Hospitals; chairman section on pharmacology American Medical Association; permanent member Medical Society state of New York; Fellow of the New York Academy of Medicine, etc., etc., 12mo. 222 pages. Price $1.00, postpaid. Chicago: G. P. Engelhard & Company, 1906.

This little work is certainly the clearest and most scientific presentation of the subject which has yet come to hand. The author has not only given his own observations, experiments and conclusions, but has worked over a mass of literature on the subject. The conciseness and simplicity of the text recommend it to the busy practitioner. Complicated chemical formulae are conspicuous by their absence but the source and end products of the toxines have been indicated in a general way. Physical and electrical as well as the chemical causes of the clinical phenomena, the results of the toxicoses, are discussed. Not least in importance is the part devoted to the practical appliction of the principles of the "toxicoses" and their treatment. The book is certainly of great value to both practitioner and student.

J. B. F.

Nursing in the Acute Infectious Fevers. By George P. Paul, M. D., Assistant Visiting Physician and Adjunct Radiographer to the Samaritan Hospital at Troy, New York.

Cloth: Pp. 200. Price $1.00 net. Philadelphia: W. B. Saunders & Co., 1906.

We can only regret the fact that so much medicine and so little nursing is included in this epitome of the "Acute Infectious Fevers." Many subjects of great practical importance to nurse and physician have not received the attention they deserved; among others, Isolation, Disinfection, Fumigation, have all been treated too briefly and it is in just such a work that they might be elaborated with advantage. As a rule, text-books for nurses err in the other direction. Let us hope that the second edition will not be amenable to the same criticism. J. B. F.

SAN JOAQUIN VALLEY MEDICAL ASSOCIATION.

The next semi-annual meeting of this thriving association will be held in Fresno on the second Tuesday in October. The President is Dr. Geo. H. Aiken of Fresno, and we understand that an excellent program is being prepared.

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PHILIP MILLS JONES, M. D., Secretary and Editor

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten.

Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. IV SEPT., 1906. No. 9

EDITORIAL NOTES.

STATE SOCIETY

On August 22d, the Council of the State Society met in San Francisco and considered, among other things, the advisibility of calling a special meeting of the House of Delegates. It will be recalled that the unpleasant jar which occurerd in San Francisco, last April, was so ill-timed as to have taken place on the morning of the day on which our Constitution and By-Laws say the officers of the Society shall be elected. After careful deliberation, the Council concluded that it would not be advisable to call a meeting of the delegates, as it would put many to a degree of trouble and an amount of expense hardly to be justified. The Constitution provides that all officers shall hold office for one year and until their successors are elected and qualified. Such being the case, and the election having been impossible at the time specified by the Constitution, there can hardly be any question of the legality of the present status of the "hold over" officers. The Council instructed the Secretary to take a ballot, by mail, of the House of Delegates, recommending to the delegates for their endorsement or rejection, that no meeting be held until the time for the regular meeting next April; that, if possible, the next meeting be held at Del Monte and that the amount of the assessment for the year 1907 be fixed at the same sum which has prevailed during the last two or three years—$2.00 per member. In response to this ballot, nearly all delegates have replied and all such have voted in the affirmative on every point except in one case, where one delegate voted to have the meeting in Los Angeles. There is some question as to whether we can secure accommodations at Del Monte at the time of our meeting, and this point will be further discussed by the Council at a later meeting and announcement made as soon thereafter as possible. The Council also elected Dr. James H. Parkinson, of Sacramento, to fill the vacancy in its number caused by the death of Dr. Thos. Ross.

LAY PRESS MEDICINE

We are so accustomed to reading grotesque imaginings set forth as medical fact, in the lay press, that when one actually encounters some intelligent statement anent things medical in a daily paper, astonishment is but natural and involuntary. Some of our readers undoubtedly saw the very premature article in one of the cheap monthly magazines, a short time ago, on the subject of a new and truly scientific "cancer cure.". Dr. Saleeby, its author, has received, and justly, very severe criticism for his literary effort in the popular press. To say that his article was hasty and unsound, is to be moderately charitable. The enterprising publishers of the magazine in question sent copies, presumably, to all medical journals, and also sent a very self-laudatory letter calling attention to the article. So far as we have observed, only a few journals have published comments upon Dr. Saleeby's paper, and these have been uniformly in the nature of adverse criticism. The trypsin treatment of cancer, as suggested by Dr. Beard, offers but little promise and Dr. Saleeby's exploitation of it seemed to us exceedingly cruel to the public. The pleasure of reading, in a daily paper, an intelligent editorial upon the subject can therefore be readily imagined. The example set by the New York *Evening Sun* in its editorial discussion of this question, might profitably be followed by other lay papers in discussing medical subjects. Really, there is no particular reason why a daily paper should not exhibit certain elementary germs of common sense in the discussion of scientific questions, and particularly in presenting alleged medical information to its readers. We take the liberty of reprinting the editorial already referred to, elsewhere in this issue, not only for the reasons intimated, but also because it is an excellent presentation of the suggested trypsin treatment of cancer and the resultant controversy in the lay press.

THE SINS OF PHYSICIANS

The present trend of the nostrum agitation has evoked much discussion of the sins of the pharmacist. Our JOURNAL has for some few years taken a slightly different attitude, and while recognizing the many and variegated sins of the pharmacist, has also called attention to a few of the sins of the physician which may have been through precept or example, or even more actively, responsible, in some measure, for the former's sins. Certainly, if the physician were sufficiently educated in his profession, he would ignore the therapeutic education so gratuitously handed out to him by the agent of the nostrum maker and he would confine

his prescribing to those remedies about which facts, rather than fiction, are known. It is not the druggist who rushes to the jobber for a stock of some new-fangled stuff—let us say anasarcine, the "cure for dropsy"—and then hastens to beg the physician to prescribe it. Rather it is with a feeling of dread that the pharmacist hears of some such preparation, originating in a commercial mind and foisted upon a credulous profession for the enrichment of the maker and not for the benefit of a suffering public and profession. He knows that soon the lieing "detail man" will be about among the physicians, and then some of them, all too ignorant of what they should know, will begin to prescribe it and he will have to invest more money, uselessly, and cumber his shelves with one more of the horde of rank nostrums. And just now the country seems to be troubled by a pest of new "cure alls". They have appeared like grasshoppers in Kansas—from the Lord only knows where! Beware of the new nostrum; beware of the detail man who has something nice and new and curing. Ask him what the Council on Pharmacy and Chemistry has done about his nice new preparation, and if you will take the time, write to the Council and ask them about it. Your patient has a right to demand that you yourself shall know what you are giving him, and this you cannot know if you depend upon the statements of the manufacturer or his smooth-tongued agent. Nine-tenths of the nostrum business is deceit, and the other tenth advertising. And we are beginning to learn that deceit may exist in high places, and that manufacturers whom we have previously regarded as above question of reproach, may do strange things. Our only hope is in the Council on Pharmacy and Chemistry of the American Medical Association, and in the *Journal* of the Association, which is to undertake to tell us, from time to time, still more of the truth about things pharmaceutical. Do not allow anything to blind you to the enormous value of this Council and its work. Do not allow the inspired criticism of the "published for profit" medical(?) journals to make you believe that there is trouble in the Association or that the work of its Council is not honest. Come back out of the nostrum mire and try to clean up.

ANOTHER OF OUR SINS

We have heard a good deal about habit-forming nostrums, or "patent" medicines, thanks to *Collier's Weekly* and the *Ladies' Home Journal,* and as a result of all this agitation, the Congress has at last enacted a pure food and drug bill that may really, in the long run, do some thing. It actually looks to us, from the way the work has been begun, as though a lot of good will come to the public from that law. But let us look at another side of this question of habit-forming drugs. How many of us use sufficient caution in giving or prescribing medicines containing morphine, opium or cocaine? How is it that so many patients know all about sulfonal and trional and other things? Do you mark your prescriptions "not to be refilled under any circumstances," and if so, do you back up the druggist when he refuses to refill such a prescription and gets into a row with the patient? Suppose the patient, liking the medicine which you gave and which so promptly relieved his belly ache, returns to the druggist for more. The druggist states that he cannot refill the prescription without the physician's order. Then the patient becomes suspicious and wants to know if the medicine contains opium or morphine. What is the druggist to do? Sometimes he can get out of it, but mostly he cannot and then he must do one of two things; refill the prescription or flatly refuse and let the patient know that it contains morphine. Then the patient "roasts" his physician for giving him the drug, and then—too often—the physician "roasts" the pharmacist for giving the information to the patient. This is absolutely wrong. If the pharmacist is honest enough to the patient to protect him by refusing to refill such a prescription, he should receive our highest commendation and support rather than our reproaches. But does he? Why not help the pharmacist to do the right thing by writing upon the prescription the statement that it is not to be refilled, or by requesting that *no number be placed upon the container?* In this way the responsibility of the prescription being refilled is eliminated, for the druggist can point out the fact that, as it has no number, it will be quite impossible to refill it and a new prescription must be had from the physician.

AND AGAIN

This whole question of refilling prescriptions is a big and an important one. Can it not be stopped? We all know that very often some prescription is given, not necessarily calling for any narcotic drug, which should be used only under certain conditions and which would be harmful under others. Also, we all know that, too often for the good of the taker, prescriptions are passed about from one person to another. Why not get the druggist to print upon his label something of this sort: "This prescription is intended to have a definite effect and should be used only for the time indicated by, and under the observation of, your physician. It will not be refilled without his order." Furthermore, in the wisdom of the Congress, unquestioned save in some interested quarters, the sale of mixtures containing narcotic or habit-forming drugs, unless the exact amount of such drug contained is stated on the label, is prohibited in the territories and their shipment between states is made illegal. Why not apply this general principle to physicians' prescriptions? Why not specify on the label, "This prescription contains morphine (or chloral, or cocaine, etc.) and under no circumstances is to be refilled. Poison." Suppose that the pharmacist should undertake to protect the public from its foolish desire for self-medication in this way, would he be supported by physicians? But, it will be contended, it is often necessary to give a patient some narcotic or analgesic and it would be injurious to the patient to know that he was taking such a drug. That may be, and sometimes is, perfectly true. Therefore there is still the more reason why the patient should be fully guarded

from forming a habit which may destroy him, and this through the unconscious agency of the man in whom he has trusted his life and his health—his physician. Probably the number of cases in which the individual has formed the habit of taking some narcotic drug through the original agency of a physician's prescription, is very small; but even granted that this is the case, should there be *any* such? Does it not seem probable that the possible danger can be entirely removed in one of the ways suggested? Let us urge the pharmacist to undertake some one of these plans, and then let us do our duty and support him when the issue comes between himself and the patient. We are certainly failing of our full duty if we do not do everything possible to protect the patient from himself.

ANOTHER JOURNAL

It is isdeed a pleasant task to record the birth of another child to the family of state journals. Slowly but surely the family is getting larger, and as the years pass, it is getting more than proportionately stronger. The newest member is the *West Virgina Medical Journal,* owned and published by the West Virginia State Medical Association. The first number bears date of August, and from it we learn that the journal is to be issued bimonthly, at least for the first year. It is under the editorial charge of Dr. S. L. Jepson, of Wheeling, and the appearance of the first number is indeed highly creditable. It is well gotten up, well printed, brightly edited, and its advertising pages are clean. We most sincerely wish the *West Virginia Medical Journal* every possible success and every good wish. We would make but one suggestion—and this will apply to all state organizations publishing journals which have not yet adopted the plan: Combine the office of Secretary of the state organization and editor of the journal in the same individual. This has been done in a few of the states and we feel quite sure that the editors in the states where it is not the case will agree with those where it is the custom, that much time and bother are saved by the simple combination. The arrangement centralizes the work of the society, lessens the amount of red tape, and helps every member of the society—for he knows that all his communications and queries go to one place.

THOSE FEES ONCE MORE

The proper minimum fee for an examination for life insurance is demanding more and more space in the medical journals. It is also receiving the attention of state medical organizations, and county medical societies in all parts of the country are talking the matter over; some of them are acting, too. At the last meeting of the Minnesota State Medical Association, rather strong resolutions were adopted, and in discussing these and the whole question generally, the *Northwestern Lancet* has some rather pertinent things to say.

> "Several of the prominent men throughout the state have written the companies for which they previously made examinations, resigning their office unless the minimum fee was made $5.00. In the majority of cases the resignations have been promptly accepted and other men appointed to fill the vacancy. A man who has the courage to stand by his principles by supporting a general resolution [of the Association] and resigning his place as examiner is too valuable a man for the company to lose, and the company which accepts such a resignation is not a safe company to insure in. The man who openly accepts an appointment as examiner for such a company after reading the resolution adopted by his state organization is disloyal to himself and his fellow men. He virtually forfeits his membership in every medical society of which he has been a member."

It is, we are sorry to say, quite true that some men will claim to abide by the resolution of their society and yet will continue to do cut-rate work for $3.00 fees—secretly. Are not these men a menace to the company for which they work? If they will be dishonest to themselves and their fellows and to their profession, for the small sum of $2.00, is it not likely that they may be induced to be dishonest in the matter of passing doubtful risks—if the reward is tendered them? Any man who will be dishonest about a little thing of that sort, you may be sure will be dishonest in other and more important things. And yet, doubtless, some of the medical examiners or directors are chuckling to themselves to think how they are fooling the county society and its resolutions, and how some members of the society are doing their work and at their own price. Any ordinary business man may not hesitate to make "presents" in order to get information of benefit in his business; but he does not place much confidence in the honesty of the informer or give him a position of trust.

PROPRIETARY PROSTITUTION

Some time ago the *Journal of the A. M. A.* published a statement to the effect that most proprietaries, no matter how exclusively they may have been presented to the medical profession at first, eventually became "patent" medicines, in the sense that they were later advertised directly to the public and encouraged self-medication. A very forcible example of just that very progress from the doctor and the medical journal to the general public and the lay publication has recently been furnished. Some few years ago Mr. Alpers, one of the leading pharmacists of New York, became interested in guiacol preparations and derivatives and produced a substance which he called "triacol" (Alpers). It was presented to the medicil profession, and, we believe, found to have some merit. Doubtless it was sent around and a number of physicians "sampled." Doubtless, too, a number of hospitals received supplies of it and used it. It was advertised in some of the larger medical journals and was apparently, a perfectly ethical prepara-

tion. But now comes the sequel. Having developed a certain market in the medical profession, and having secured a certain quasi-medical endorsement, the scheming proprietaros, the Alpers Chemical Co., throw off the mantle of decency, and come before the public. In the last issue of one of the lay magazines (Ainslee's), appears the following advertisement:

> "Physicians prescribe Triacol (Alpers). Triacol (Alpers) has been accepted by physicians as the most perfect combination of certain approved remedial agents for the treatment and cure of diseases of the organs of respiration. Coughs, bronchitis, bronchial asthma, and other diseases of the respiratory organs promptly yield to the action of this scientific preparation. Triacol (Alpers) is not a patent medicine. It is a strictly ethical preparation, extensively and successfully used in hospitals and in private medical practice. Interesting booklet sent on request, telling what triacol (Alpers) has done and is doing to cure coughs, bronchitis, etc. Thousands of physicians approve triacol and praise it. At all department stores and druggists. Price $1.00, express prepaid."

Now is not that nice. And Mr. Alpers stood for years as a leader in scientific pharmacy and his voice was listened to with respect in the deliberations of the American Pharmaceutical Association. Is it to laugh or to weep?

DISTRICT COMMITTEES

Tuesday, April 17th, Dr. McKee, of Sacramento, senator from that district, addressed the delegates on the subject of medical and health legislation. (See JOURNAL, June, page 176.) We may venture to recall the fact that Dr. McKee suggested the wisdom of forming senatorial district committees of two or three members in each senatorial district, which committees should act with the Committee on Public Policy and Legislation of the State Society. He dwelt upon the never ending attacks upon the law regulating the practice of medicine, which attacks are always supported by those with questionable motives within the profession, and from without, by incompetent quacks who cannot secure legal right to prey upon the sick and injured. The suggestion was placed before the President and he authorized the appointment of such committees and instructed the Secretary to take the matter up with the component societies and ask for recommendations for nominees for such committees. It seems probable that these senatorial district committees will have considerable work to do, for there is always much foolish legislation dealing with health matters presented at every session of the legislature. More work can be done in setting these questions right in the minds of our Solons by influential physicians who are known to the legislators, or known to influential constituents, than by rank outsiders; this is the reason for the committees. As yet not all county societies have been heard from in reply to the request for nominations, and it is to be hoped that those which have not yet sent in their nominations, will quickly do so. Time is passing and before we know it the first of the year will be upon us. Let us be sure that we have this machinery in good working order before the legislature meets, and if possible, before election day.

THE SYSTEMATIC TREATMENT OF CHRONIC URETHRITIS AS CONDUCTED IN THE GENITO-URINARY CLINIC AT COOPER MEDICAL COLLEGE. A PRELIMINARY REPORT.*

By HOWARD SOMERS, M. D., San Francisco.

Chronic urethritis is the bug-bear pre-eminent of the genito-urinary specialist, not because of the great number of such cases he is confronted with, but of the varying disappointing results, in so many cases; notwithstanding that the treatment may be most intelligent and carried out on true scientific lines. No wonder that he cannot disbelieve the saying recorded to Record, that wherever he goes after death, be it above or below, he is quite positive that many will be the men who will come to him saying, "Doctor, I still have that morning drop."

Urethritis and remedies galore, such as antiseptics, astringents, pressure, packing, passing of sounds, soluble bougies, electricity, etc., with no definite results, have led to the pursuance of a policy suggested by Dr. Rigdon, that the genito-urinary clinic carry on without intermittance a systematic tria lto prove the virtue or efficiency of some of the most important methods suggested for the cure of chronic urethritis. It was the intention, and is still carried out in the clinic, that each method shall be given a thorough and impartial trial, limited to no other time than that in which its efficacy proves valueless. At this stage only, do we signal for a change in either abolishing same altogether, or to the treatment add some other method and so continuing, only making a change when indications again point to no improvement, and thus do we add or abolish only when the remedies are not producing the results looked for. For manganate of potassium solutions, known as the example, we may begin with irrigations of the per-Janet method; or irrigations and instillations of bichloride known as the Guyon method. This Guyon method is said to do well in those cases that have resisted the silver, or irrigations of silver, known as the Neisser method.

With any of the treatments the patient is told, and it is impressed upon him, to avoid excessive exercise such as horseback or bicycle riding, avoid alcoholics, sexual intercourse; take care of the general health. But still, it is the local treatment that we look to and expect to effect a cure, as a knowledge of the pathology will indicate.

It is generally accepted that if an acute attack

*Read before the Cooper College Science Club.

of urethritis lasts for as long as period as two months, it is classified as chronic with granular patches on the mucous membrane which fail to heal because of plastic infiltration of the submucous tissue, causing more or less coarctation of the canal at these points, caused probably by the extension of the inflammatory action deeply into the urethra, and even into the periurethral tissues, causing the deposit of plastic material, this finally resulting in a connective tissue formation.

The gonococcus penetrates the deep tissues and is no doubt the direct cause of the inflammatory deposit. In many cases of chronic gonorrhea, no stricture will be found to be present, the discharge being prolonged by either the involvement of the sinuses and glands of the urethra (which are much more numerous and of greater depth than is generally supposed) or by the general condition of the patient. Threads in the urine consist of an amount of purulent secretion exuding from the granular patches too small to appear in the discharge which being washed out by the urine are rolled up in the form of shreds and appear as such floating on the urine; in them are imbedded numerous pus corpuscles, and a few urethral epithelial cells. The more compact such fiber seems, the more pus cells it contains; on the other hand the more transparent it appears, the less pus cells it contains, and the more urethral epithelia. The more epithelia predominating, the nearer the process is to a cure.

The patient enters the clinic, giving a complaint of having had an attack of urethritis of over two months' standing and depending on his intelligence will give a fair train of symptoms in which we, combining the same with the objective symptoms, will make the diagnosis.

We begin first by the inspection of the genitals, and any abnormality is noted; meatus, its condition; are the lips pouty, inflamed or stuck together; if a discharge, its character; does this discharge appear only by expression; is it seen only at certain periods of the day. Examination of the discharge for gonococci. I might add here that we have found in all cases of chronic discharge either no gonococci at all, or if present, in a very attenuated condition. Thus observation does not mean any exacerbation that may take place from indiscretion, for in the latter phase we find conditions similar to an acute discharge, i. e., the characteristic profuse creamy purulent discharge, loaded with fat, healthy looking gonococci. The stain used has been either the Gram's counter stain or the Roux, both staining equally well and invariably verifying each other. The patient is then subjected to the wash and two-glass test. This test is done by washing—using the Valentine irrigation—the anterior urethra with plain water or weak boric acid solution until the return water is absolutely clear from pus specks or shreds. The patient is then told to pass his water into two glasses, half in the first and the balance in the second glass. If the first is cloudy or contains shreds and specks and the second glass clear it is a pretty reasonable indication that the posterior urethra is involved, and the bladder is not. If the two glasses are cloudy, then it will indicate that either the posterior urethra or the bladder, or some place further up in the urinary tract, is involved. The massage of the prostrate gland, its consistency, the expression of its contents and the microscopic examination of the same for pus cells, etc., the finding of stricture, its location, the use of the endoscope, all of which point out the line of treatment we are to pursue.

With conditions ever in mind, such as the pathology tells us, i. e., the plastic infiltration followed by connective tissue formation, involving not only the urethra itself, but the sinuses and glands connecting with it, treatment should be on such lines as to cause an absorption, a melting away of the hard mass, thereby allowing a normal vascular supply to reach and nourish a healthy growth of epithelia and take the place of the granular patches.

Therefore under this policy we began treating cases, selecting first for a thorough trial the Janet method, beginning with a daily wash or irrigation of the permangarate solution of strength of about 1-6000 and gradually increasing up to as high as 1-1000, this treatment covering a period of 6 to 10 weeks. If no improvement is noted in this time we switch to the silver, beginning with a 1-12000 and, as in permanganate solution, gradually increasing the strength. Along with these irrigations, if we find the prostrate gland involved, a bi-weekly massage per rectum is carried on. Should a stricture be present a bi-weekly passage of sounds.

Since May 1, 1905, to February 1, 1906, covering a period of nine months, we show the following results from 24 cases of typical chronic urethritis all under the daily irrigation of the permanganate solution known as the Janet method: 19 temporary improvement, i. e., after the irrigations were stopped for a few days or a week the old condition would resume itself; three improvement, permanent as far as we know; two apparently cured, i. e., they were discharged as cured.

Summary: The above showing has led us to the conclusion that the Janet method is excellent for its cleansing power, its ability to clear the canal of large quantities of pus, to get the tissues in a more subdued condition free to a great extent of the infective inflammation, but we feel it has not the virtue of producing an absorption of the inflammatory infiltration which is the ultimate cause of the chronic discharge.

REPORT OF TWENTY-FIVE CASES OF TUBERCULOSIS TREATED WITH INTRAVENOUS INJECTIONS OF KOCH'S TUBERCULIN.

By MAX ROTHSCHILD, M. D., San Francisco.

The following paper presents a report of a number of cases of tuberculosis treated with intravenous injections of Koch's tuberculin. It will be only a

* To have been read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

preliminary report, as some of my patients have not been observed long enough to consider them as permanently cured; but in all cases of tuberculosis which I have treated in the last two or three years, the effect of this method has been so encouraging that I consider it my duty to recommend it to you, and to have you try it yourselves. It would have been also more satisfactory to me if a report of a larger number of cases could be given—this paper includes only twenty-five cases—but the number at any rate is large enough to exclude any deception in regard to the efficacy of the treatment .

I started about six years ago to make intravenous injections for the treatment of tuberculosis, but it took me some time to so perfect the solutions and the technic as to permit of systematic treatment.

The patients may be divided into three classes, according to the effect obtained from the first trial injection of tuberculin. The first class is made up of those who show a very quick and energetic reaction with high fever; the second class, of those who show a medium reaction; and the third class, of those who give a weak reaction. The strength of the subsequent doses and their frequency are based on the sharpness of the reaction obtained from this first dose. As a first trial dose, one-third of a milligram of Koch's tuberculin is injected. Although this method of injecting intravenously is well known, yet, as it is so important, it is well to repeat the steps of the procedure. These injections may cause pain, thrombosis, and other disagreeable symptoms, such as chills, prolonged fever, headaches and general malaise if they are not administered properly. There may be pain at the site of the injection, if the needle is not inserted properly, or if it perforates the vein, and if the solution gets into the tissue surrounding the vein. Thrombosis is caused, if the point of the needle is not free in the lumen of the vein and so wounds the intima. The constitutional symptoms, such as chills and prolonged fever, are frequently the result of imperfect asepsis, or of solutions which are not absolutely sterile. All these accidents occurred in my first cases, and they are most disagreeable. During the last two or three years, however, I have not had a mishap of any kind.

Usually I take the veins of the forearm or of the elbow as points of injection. The patient lets the arm hang down, and closes and opens the hand vigorously several times, then a bandage is put on, and in most cases the veins swell sufficiently to permit an injection without trouble. When the veins are very small or deep, the bandage may be removed and reapplied several times in order to get the veins well filled, and so render the insertion of the needle into them easy. In many cases when the veins are not very large, I inject the solution before the bandage is removed, as sometimes in removing the bandage before the injection is made, the vein slides a little to one side and hooks itself on the point of the inserted needle. Immediately after the injection is finished, the bandage is removed. As a first trial injection I take, as mentioned, one third of a milligram of tuberculin in normal salt solution. This first injection answers a double purpose. The character of the reaction gives me an indication of the size of dose with which to begin treatment, and also of how often to inject. Besides, it is proof of the correctness of the diagnosis. The patients who react very strongly show the effect sometimes in two minutes, sometimes in half an hour after the injection. The first symptom is very often a feeling of pain or heaviness in the diseased organ. In one case of tuberculosis of the throat, which Dr. Pischel observed with me, the patient felt, immediately after the injection, a swelling of the mucous membranes of the throat which became at times quite annoying, so that it was a short time difficult for him to talk, and even to breathe comfortably. Very soon after the injection the temperature begins to rise from 102 degrees to 104 degrees, and does not fall to its normal condition, or rather to the temperature of the time before the injection, for from twenty-four to forty-eight hours. In cases with such strong reaction, the treatment should be commenced with very small doses of tuberculin, even with as little as one-tenth of a milligram and given once a week, and slowly increased.

It is of the very greatest importance to go ahead very slowly and carefully, and to use judgment in increasing the amount of tuberculin, and the frequency of the injections. I believe that the desire of going ahead too fast is one of the chief reasons that brought the hypodermic injections of tuberculin into discredit. On the other hand, when slowly and carefully increased, tuberculin is undoubtedly a most efficacious remedial agent in tuberculosis, even when used hypodermically. Its efficiency is markedly increased, however, when it is introduced intravenously, and this is the point of this present paper. In trying to hurry the treatment, the effect is not only bad, but the patients become discouraged and disgusted with the disagreeable reactions and wish to stop. Therefore, patience and judgment in increasing the amount of tuberculin is a matter of the highest importance.

The patients with a medium reaction develop their fever about two to six hours after the injection, and the temperature goes up from 101 degrees to 102 degrees. After twenty-four hours there is no more fever. In these cases I generally start in with one-fifth of a milligram and inject about every fifth day.

In the cases of the third group with weak reaction, there is usually only an increase of fever of about one to one and one-half degrees, and the fever does not show until about eighteen hours after the injection, and does not last longer than about six hours. The cases of the last class are mostly of incipient tuberculosis. I continue with one-third of a milligram until there is no more reaction, and then increase the dose gradually, giving two injections per week from the start.

As soon as I get a reaction during the treatment, I go back again to the dose which I used just before, and also let a few days more than usual pass before I inject again. The chief point for a good result is the ability to use as much tuberculin as the patient will stand, to inject as often as possible, but to avoid a reaction during the treatment.

In the majority of my cases the reaction after the trial injection has been very rapid and strong. The cases with a weak reaction are rare, as most patients who have symptoms of tuberculosis sufficiently outspoken to make them consult a physician, are usually not in the incipient stage. The few cases with weak reaction which I have had under my treatment, are patients who came to me on account of other troubles, and a beginning tubercular infection was found in one of the apices during the examination. Cases in a very advanced stage of consumption, such as we would, according to the usual classification, designate as cases of the third stage of tuberculosis, I have not treated. At the same time I have, as you will see in the report of my cases, treated a number of patients who made a very bad impression at the first examination. Even in those cases, however, the result has been very encouraging. Most of my cases have been pulmonary tuberculosis. The following case serves for illustration:

A woman, twenty-six years of age, consulted me on account of cough and loss in weight of about fifteen pounds. There had been several cases of tuberculosis in the family. Besides the cough and loss in weight, there was general weakness, tubercle bacilli were found in the sputum; she had night sweats, and the evening temperature ran to 100 degrees F. The physical examination revealed dullness over the right apex, extending down in front to the third rib; sharp breathing during expiration over the right upper lobe, and rales, which were not very pronounced in quiet breathing, but became very pronounced after coughing. The trial injection of one-third of a milligram of tuberculin gave a strong reaction, as six hours afterward there was fever of 101 degrees and ten hours afterwards 104 degrees; that lasted for four hours. Twenty-four hours after the injection the patient still had a temperature of 101 degrees and thirty-six hours after the injection the thermometer registered 99 degrees, after which the thermometer returned to the same character as before the injection. After this the patient was given three injections of one-fifth of a milligram every fifth day. After this the dose was increased slowly but steadily every fifth day for about six weeks. From this time on she received injections twice weekly. In about three months there was no more fever and all the other symptoms had disappeared. There was an increase in weight of eighteen pounds, and after about four months of treatment the physical examination of the chest elicited no abnormal symptoms. This case, as well as the other few cases mentioned here as especially interesting, are more exactly described in the extended report of cases given at the end of this paper.

Especially noteworthy is a case of tubercular pleurisy followed by a tuberculosis of the peritoneum with a very marked ascites. The patient was first operated upon by Dr. Fehleisen, and then referred to me for treatment of the pulmonary condition. For the past three and one-half years since the conclusion of this treatment the patient has shown no sign of tuberculosis.

Another case of especial interest is one of tubercular ulcers of the intestinal tract. This patient was seen by Dr. W. B. Lewitt and a microscopical examination was made by Dr. Ebright, who found tubercle bacilli in the feces. I was able to confirm the diagnosis of these gentlemen. The patient had lost about forty-five pounds in weight. He had diarrhoea with more or less blood and some disagreeable hemorrhages from the ulcers which were in the colon, and was naturally in a very weak and emaciated condition. He was unable to leave his bed, to which he had been confined for three months. The effect of the tuberculin injections was remarkable, and the general improvement started immediately after the first injection. The appetite returned, the night sweats stopped, the diarrhoea and the blood in the movements gradually disappeared. In the first two months the patient gained twenty-four pounds, and now appears to be in excellent condition, and has gained forty-eight pounds in all. He is still improving in strength and weight under the treatment. This case, as well as the next following, should, however, be watched for some time longer, but the excellent and immediate result of the treatment induced me to mention them to you in this preliminary report.

The second case is that of a Chinese woman of about thirty years of age, who had been suffering for quite a time with tuberculosis of the right upper lobe, and tubercular ulcers of the vocal chords. The microscopical examination of the sputum had previously been made by Professor Ophuls, whose report is given at the end of this paper. This patient has been observed with me by Dr. Pischel. When I first saw the patient, the symptoms of phthisis were very evident; the patient had lost considerably in weight; she coughed continually and raised a great amount of characteristic sputum, which was tinged with blood and full of tubercle bacilli. Besides, the patient had night sweats, and afternoon temperatures from 101 to 101 1-2 degrees, and had suffered from several very dangerous hemorrhages. As before remarked, this patient has not been observed long enough to be rated as cured because she is still under treatment, but the improvement has already been so marked that I consider the case worth mentioning to you. The fever disappeared three weeks after commencing the injections; there were no more night sweats; the cough and the expectoration were considerably less and there was no more blood in the sputum; the appetite had increased and there was a gain in weight of fourteen pounds. With this change of symptoms came an improvement of the condition of the throat and the lung. The report of Dr. Pischel, concerning the very good result in regard to the tubercular condition of the throat is given at the end, case No. 30. There has been a gradual disappearance of the rales and in their stead there is sharp breathing with inclination towards bronchial breathing during expiration, which is gradually growing softer.

As you will see from these few cases, the amounts of tuberculin I am using for injection are not as large as the doses that are frequently used for hypodermic injections. In some of my cases I went up to two centigrams, and that is the largest dose I have ever used. In patients whom I could afterwards send to the country for a few months, the treatment was usually continued for about one or two months after the disappearance of the symptoms and clearing up of the lungs. In those cases which could not go to the country, the injections were kept up for about three months longer. It is unnecessary to mention here that all the patients were impressed with the great importance of the fresh air treatment, and that wherever it could be carried out the two treatments were combined. All other known means of combatting tuberculosis were also taken advantage of, such as rules of diet and hygiene, and the use of proper drugs. It is considered especially important to pay a great deal of attention to the fever. Wherever it was possible, I sent my patients who had at any time of the day a temperature of 100 degrees or more, to bed and

let them stay there for from two to four weeks. The absolute rest in bed is of great help in such cases, and especially so when the rest is taken in the fresh air or in a sanitorium for tuberculosis.

In comparing the intravenous injections of tuberculin with hypodermic injections, it can be asserted that the much more rapid and stronger reaction of the intravenous injections bear a relationship to the good results obtained. From personal experience I can state that the reaction of the hypodermic injection is a great deal slower, and the results have not been nearly as encouraging as in the cases which I give you in this paper, and which were treated by intravenous injections. Besides this chief difference, there are several other advantages in the intravenous injections, as for instance the duration of the treatment, which is shorter than the duration of the treatment with hypodermic injections. One of the most encouraging reports on cases treated with hypodermic injections appeared in the last December number of the Munich Medical Weekly by Dr. Krause, one of the physicians of the well known Brehmer's Sanatorium. He reports four cases, but only one of them had well marked fever before the treatment, and the results there obtained were not nearly as good as in my cases. He also complained that in all his cases, as is the rule in hypodermic injections of tuberculin, the local reaction was most disagreeable and painful, and lasted sometimes several weeks, and frequently appeared in the site of the previous injections, with every new injection. This disagreeable feature is not present in my method of injecting; the intravenous injection, properly given, is absolutely painless, and never causes local irritation.

In some instances, as you will see by the report of cases given at the end of this paper, the result has been remarkable in regard to its rapidity. I have also noticed that after injecting a few weeks, there was sometimes a tendency in my pulmonary cases to again expectorate a little bloody sputum, which may have been caused by a hyperemia of the diseased tissue, which precedes the definite restoration to the normal condition. I have one case now under observation with Dr. Fehleisen illustrating this point. The patient has a tubercular fistula above the rectum, which was operated upon about eight months ago. The fistula did not heal, and I started in to make intravenous injections. After about two months the fistula showed a tendency to bleed, a process similar to the bloody sputum in some of my pulmonary cases.

So far I have not observed any relapses in any of my patients. Of course, I repeat again that I am well aware of the fact that all cases of tuberculosis should be observed a good deal longer than two to three years, before a definite judgment on any method of treatment can be passed, but as I have said before, my results so far have been extremely encouraging, and that is the reason why I consider it right to read this paper to you today and to recommend the intravenous injection of tuberculin to your careful investigation and to a judicious trial.

Case 1. Merchant, 38 years old; no case of tuberculosis in family. Influenza three years ago; twelve months ago severe cold and ever since cough with much yellow and yellow-greenish sputum; afternoon temperatures of 99 to 100 degrees; night sweats; loss in weight of thirty-two pounds; patient feels weak and tired all the time, complains of great shortness of breath after exertions of any kind. Tubercle bacilli present. Left side does not breathe as well as right; dullness over left apex; sharp breathing during inspiration; prolonged sharp breathing during expiration, with numerous rales; small cavity in front between second and third rib. Treatment: absolute rest in bed for three weeks, guiacol valerianate and ichthyol internally; trial injection August 23, 1902, 2 p. m., one-third milligram of tuberculin; 6:00 p. m., 102 degrees; 10 p. m., 103.2 degrees; 4:00 a. m., on August 24, 102.2 degrees; 8:00 a. m., 101.6 degrees; noon, 99 degrees; disappearance of reaction. Injection of one-fifth milligram three times, every fifth day; increase to two milligrams in about two months; from then on injection twice weekly for about three months, amount slowly increased to eight milligrams; patient at this time shows considerable improvement; no more fever and night sweats; no more sputum; very little cough in the morning; appetite excellent; increase in weight of twenty-eight pounds; rales gone; only slight, sharp breathing in left upper lobe during expiration; patient went South, where he stayed three months, afterwards East and then trip to Europe. At his return in October, 1903, patient was in perfect health, no symptoms of tuberculosis since.

Case 2. Young lady, 23 years old. One year ago had pleurisy, which was followed nine months later by a tubercular peritonitis, with very large ascites; operation performed by Dr. Fehleisen. After recuperating from the operation, patient complained of cough and expectoration; night sweats; loss in weight of twelve pounds. Examination August, 1902; dullness in right apex; sharp and prolonged expiration; tubercle bacilli in sputum; after trial injection of one-third of a milligram of tuberculin, highest temperature 103 degrees eight hours after injection. Disappearance of reaction twenty-six hours after injection. Beginning of treatment with one-fifth of a milligram of tuberculin. After four months' treatment, no more symptoms. Patient has been well ever since.

Case 3. Waiter, 28 years old; one brother died of consumption at the age of nineteen years. Patient caught cold about eight months ago and has coughed ever since; expectorates a good deal of yellow and heavy sputum, often tinged with blood; largest amount in the morning after getting out of bed; night sweats; loss in weight of twenty-five pounds; fever evenings. Dullness in right upper lobe, rales during inspiration and expiration, with bronchial breathing during expiration; highest afternoon temperature 101.4 degrees; tubercle bacilli present; trial injection of one-third milligram of tuberculin, December 8, 1902, 11 a. m.; highest temperature 104.2 at 10:30 p. m.; fever all night; December 9th, 10 a. m., temperature 101 degrees; 2 p. m., 100 degrees; 6 p. m., 101.4; December 10th, return to same temperature as before injection. Beginning of treatment December 15th, with one-tenth milligram of tuberculin; rest in bed for four weeks, internally guiacol valerianate (0.3 every two hours), ichthyol (ten minimes twice daily); injections once a week for six weeks, then once every fifth day for two months, then twice a week; six weeks after beginning of treatment, patient started working again. In August, 1903, patient worked in the country for two months; no more symptoms evident. On his return in October, general condition excellent; under observation two more years; shows no more symptoms; highest amount of tuberculin, one and one-half centigrams. Patient felt so well in August that he refused to take any more treatments. (December to January, one injection week-

ly, one-tenth to one-third of a milligram; February and March, eleven injections one-third to two milligrams; April to June, twenty-four injections of two to nine milligrams; July, eight injections of one centigram to 1.5 centigrams. Gain in weight from December, 1902, to August, 1903, thirty-two pounds.)

Case 4. Electrical Engineer, 38 years old; no tuberculosis in family. Syphilis when 25 years old; patient drank heavily for several years and has lived rather a fast life. After a camping trip in Mendocino county in autumn of 1902, obstinate cough with sputum; night sweats; loss in weight of 14 pounds in about three months. Examination shows syphilitic scars in throat and on legs; tubercle bacilli in sputum; sharp breathing in both apices, more so in the right apex; rales heard during expiration; evening temperature, 99.6; trial injection, January 12, 1903, 10 a. m., one-third milligram of tuberculin; temperature, 8 p. m., 103.8; January 13, 8 a. m., 100.6; 12 noon, 100.2; 4 p. m., 100.4; 8 p. m., 100.6; January 14, 8 a. m., 98.6; return to condition as before injection. Beginning of treatment January 20 with one-tenth milligram of tuberculin; for six weeks injection once a week, then for two months once every five days; then twice a week for three months; then once a week for two months. In November, 1903, patient left for the East in good condition. In April, 1904, examination showed no more symptoms and letter of December, 1904, gave an excellent report; gain in weight from January, 1903, to November, 1903, twenty-eight pounds. Treatment, besides injection, absolute rest in bed for four weeks, guiacol valerianate and ichthyol internally; highest amount of tuberculin, two centigrams.

Case 5. Tailor, 29 years old; mother and two sisters died of consumption. No sickness besides the usual diseases of childhood. Has been coughing more or less for one year, after an attack of influenza in February, 1902. In September, 1902, severe attack of pleuritis on the left side; in bed for two weeks; loss in weight about twenty pounds, sputum; night sweats; afternoon temperature of 101 degrees; has been treated for consumption for about three months. Examination, March 14, 1903, shows dullness in left apex down to third rib; infiltration of left apex; small cavity in region of second rib; sharp bronchial breathing during inspiration, with moist and dry rales during expiration; tubercle bacilli. Trial injection one-third milligram of tuberculin; a few minutes after injection, pains and feeling of heaviness in left lung; one-half hour after injection temperature of 101.2; six hours after injection, 104.2; disappearance of reaction forty-two hours after iniection. Beginning of treatment with one-tenth of a milligram; continuation with small doses for three months, as patient shows very strong reactions as soon as the amount of tuberculin is increased; in the fourth month, beginning of injections with one-third of a milligram; in fifth month one-half; in the sixth month, one milligram; in December, 1903, disappearance of symptoms; patient has gained twenty-eight pounds; condition over left lung normal; continuation of treatment to March, 1904; no relapse.

Case 6. March, 1903, young man, 17 years old; father had "lung trouble," sister died of phthisis; patient has colds continually; has lost ten pounds in weight; coughs and expectorates, has heart palpitations and shortness of breath; night sweats once in a while; no fever. Examination showed habitus phthisicus, outspoken chlorosis, sharp breathing in right apex, prolonged expiration with rales at the end, slightly increased resistance on right side; tubercle bacilli; trial injection of one-third of a milligram of tuberculin March 22d, 8 a. m. 12 noon, 90 degrees; 4 p. m., 100 degrees; 10 p. m., 101 degrees; March 23rd, 4 a. m., 101.8; 8 a. m., 101 degrees, 12 noon, 99 degrees; injection of one-third of a milligram twice weekly, increase in three months to six milligrams; by that time disappearance of symptoms and return to old weight; patient went South. He passed through San Francisco on his way to Seattle in October, 1903, and his general health was excellent according to his statement, which was confirmed by examination. One year later examination shows normal conditions.

Case 7. April, 1903. Paymaster, 40 years old. Syphilis fifteen years ago, which was treated properly and did not leave any symptoms or old scars; no case of tuberculosis in his family. Four months ago severe cold and afterwards continual cough and expectoration; in the last two weeks night sweats and evening temperatures of 99.4 to 100 degrees; loss in weight of six pounds; no oppetite. Sharp breathing during inspiration, over right apex, prolonged and sharp breathing during expiration, with few rales; tubercle bacilli found. Trial injection of one-third milligram of tuberculin; highest temperture 102.8, twenty-two hours after injection; disappearance of reaction thirty-six hours after injection. Began treatment with one-fifth milligram of tuberculin. Three months after beginning of treatment, disappearance of symptoms; increase in weight of fourteen pounds; condition over lung normal; continuation of treatment three months longer; no relapse.

Case 8. Girl, 24 years old. One year ago severe cold, which lasted about three months; ever since then slight cough with some expectoration; since September, 1902, night sweats and evening fever, hoarseness and shortness of breath; loss in weight of twenty-two pounds. Examination April, 1903: Over the whole left lung rales, moist and dry, partly small, partly medium; infiltration in left apex; breathing sharp with tendency towards bronchial breathing; also sharp breathing during expiration over right apex; afternoon temperature, 101.4; tubercle bacilli present. Trial injection of one-third milligram of tuberculin; highest temperature, 104.2 six hours after injection; disappearance of reaction forty-two hours after injection. Beginning of treatment with one-tenth milligram of tuberculin; absolute rest in bed for four weeks; after three months increase in weight of ten pounds; disappearance of night sweats and disappearance of catarrhal conditions in right lung; considerable improvement in left lung; after six months, no more cough and sputum; increase in weight of eighteen pounds; with exception of sharp breathing during the act of expiration over left apex, no more symptoms over the lung. January, 1904, patient appeared to be in perfect condition. March, 1904, patient had pneumonia and died.

Case 9. Drummer, 30 years old. Pneumonia with pleuritis in September, 1902; ever since that time cough which became worse in January, 1903; expectoration of yellow, heavy sputum, once in a while tinged with blood; since March, 1903, night sweats and slight temperature in the afternoon; loss in weight of eight pounds. No tuberculosis in family. Examination April, 1903, showed: Dullness in left apex, sharp breathing during inspiration and expiration, with rales after coughing. Trial injection of one-third milligram of tuberculin; highest temperature 103.2 fourteen hours after injection; disappearance of fever twenty-eight hours after injection. Beginning of treatment with one-fifth milligram of tuberculin every fifth day; after four months disappearance of symptoms, normal breathing in left lung; gain in weight of twelve pounds. Patient went to the country for a few months and has been well ever since.

Case 10. May, 1903, milliner, 23 years old. An aunt died of phthisis. Since about one year, cough with sputum, loss in weight of twelve pounds; feeling of weakness and shortness in breath; night sweats. Examination: Tubercle bacilli, dullness in right upper lobe to second rib; small rales; tend-

ency to bronchial breathing with sharp, prolonged expiration; temperature 99.8. Trial injection of one-third milligram of tuberculin May 19, 10 a. m.; 4 p. m., 101; 8 p. m., 102.8; 12:30 a. m., 103; May 20, 8 a. m., 100.4; 11 a. m., 99 degrees. Treatment as in other cases. After three months disappearance of symptoms. Patient weighs ten pounds more than she did for four years.

Case 11. Miner, 43 years old. Cough for about one year and loss in weight from one hundred and seventy-eight to one hundred and fifty-nine pounds; besides cough and expectoration, night sweats and afternoon temperatures of 99.5 to 100 degrees. Examination July, 1903: Tubercle bacilli, dullness in left apex, sharp breathing during inspiration, prolonged sharp breathing with rales during expiration; about 1 per cent of sugar in urine. Trial injection of one-third milligram of tuberculin; highest temperature, 103.2 degrees ten hours after injection; disappearance of fever twenty-six hours after injection. Beginning of treatment with one-fifth milligram every fifth day; after seven months disappearance of symptoms. Normal conditions in left apex. Patient went to the country; gain in weight of twelve pounds. The patient did not go back to his highest weight on account of diabetes.

Case 12. November, 1903; patient 28 years old; no family history. Patient has been a heavy drinker for the last eight years; one year ago, hemoptosis without preliminary symptoms; ever since that time cough and expectoration which became worse in the last three months; heart palpitations after exertion of any kind; patient feels pretty well, otherwise; loss in weigh of three pounds. Examination: Systolic murmer; sharp breathing in the lower lobe of the left lung; the act of expiration prolonged and rales after coughing; no night sweats; tubercle bacilli; trial injection of one-third milligram of tuberculin; highest temperature, 101.8 degrees twenty hours after injection; disappearance of reaction twenty-eight hours after injection. Beginning of treatment with injections of one-third milligram tuberculin twice weekly; after three months no more symptoms of tuberculosis. Patient has gained six pounds and feels well; no relapse so far. Patient went to the mountains for six months after the last injection.

Case 13. November, 1903, engineer, 26 years old. Bad attack of malaria two years ago in Panama; renewed attack six weeks ago, and this was the reason for consulting me. Examination: Besides enlarged liver and spleen, sharp breathing during inspiration in right apex and prolonged sharp breathing with very few rales during expiration; patient coughs and expectorates a little in the morning; otherwise feels pretty well; tubercle bacilli. Trial injection of one-third milligram of tuberculin; highest temperature 102.2 twelve hours after injection; disappearance of reaction after twenty-four hours; continuation with injections of one-third of a milligram; after two months' treatment no more symptoms; increase in weight of eight pounds; patient continued treatment two months longer; well ever since.

Case 14. December, 1903; patient 40 years old. No case of tuberculosis in family. Four months ago, pneumonia of right lung; ever since then cough and expectoration; in the last two months, night sweats; loss in weight of eighteen pounds; fainting and dizzy spells; great weakness in walking, shortness of breath at the least exertion. Examination: Dullness in right apex down to the third rib; sharp breathing during inspiration; prolonged sharp breathing during expiration, with tendency towards bronchial breathing; tubercle bacilli. Trial injection of one-third milligram of tuberculin; highest temperature fifteen hours after injection, 102.4. Disappearance of reaction twenty-eight hours after injection. Beginning of treatment with one-fifth milligram of tuberculin; after three months no more symptoms; gain in weight of twenty pounds, condition over the right lung normal. Patient has been under treatment for three months after disappearance of symptoms; altogether six months; no relapse.

Case 15. March, 1904; woman 30 years old. Migrane since childhood; one brother died of phthisis; father has had cough and expectoration for the last few years; severe cold one year and a half ago; ever since then irritation of the bladder and light cough, which was dry in the first few months; then became worse, with a good deal of expectoration in the morning. In the last three months, considerable loss in weight; patient weighs 97 pounds; night sweats; fever in the afternoon. Examination: Habitus phthisicus; in the right lower lobe dullness and infiltration; sharp breathing during inspiration, vesico-bronchial breathing during expiration with moist and dry rales; tubercle bacilli; sputum tinged with blood; trial injection of one-third milligram of tuberculin; highest temperature fourteen hours after injection, 103 degrees; thirty-four hours after injection disappearance of reaction. Beginning of treatment with one-fifth milligram of tuberculin; after four months disappearance of symptoms; gain in weight, twenty-four pounds. Patient went to the country for three months; no relapse.

Case 16. April, 1904; young man, 23 years old, half-breed from Alaska. Cough with sputum and night sweats; loss in weight of twenty-four pounds; loss of appetite. Examination: Tubercle bacilli; fever in afternoon, 101.6; dullness over right upper and middle lobe; sharp and partly bronchial breathing with medium and small dry and moist rales; trial injection of one-third milligram of tuberculin on April 10, 1904, 10 a. m.; 12 noon, 101 degrees; 4 p. m., 103 degrees; 6 p. m. to 12 midnight, 104 to 104.4 degrees; 12 to 8 a. m., 104.4 to 102 degrees; 8 a. m. to 8 p. m., 102 to 101; disappearance of reaction. Beginning of treatment with one-tenth milligram of tuberculin; absolute rest in bed for four weeks; after three months no more fever or night sweats; very little sputum and cough; gain in weight eighteen pounds; after six months no more symptoms of any kind; patient gained thirty-two pounds altogether; went to work in the country.

Case 17. May, 1904; woman, 28 years; married, has one child and is pregnant in the sixth month. Cough and sputum for about two months; night sweats; loss in weight of sixteen pounds. Examination: Tubercle bacilli; dullness in right upper lobe; sharp inspiratory act and prolonged sharp expiratory act with dry and moist rales; temperature 99.8. Trial injection of one-third milligram of tuberculin; highest temperature, 103.8; disappearance of reaction after thirty-six hours. Beginning of treatment with one-tenth milligram of euberculin; after three months disappearance of night sweats, fever and sputum; increase in weight of ten pounds. After the confinement, increased cough and sputum; again night sweats and temperatures in the afternoon up to 101.4 for several weeks; loss in weight of eight pounds; examined with Dr. Shiels. Patient went to the country in beginning of 1905; cough and sputum continues; began the injections again in April, 1905; after three months disappearance of symptoms, increase in weight of fourteen pounds. Patient showed slight dullness in right apex and sharp breathing with small rales during expiration. While the general condition is good, this condition over the lung continues and is about the same at the present time without any tendency to progress, but patient has not been taking her treatments regularly.

Case 18. Saleswoman, 32 years old. Eight years ago "abscess of uterus"; operation; afterwards stomach trouble, which seems to have been of a nervous character; insomnia and attacks of severe

headaches. Three years ago, miscarriage; afterwards two operations and rest in bed for three months; weight 137 pounds; one year ago influenza; afterwards cough, expectoration, shortness of breath and heart palpitations; in the last nine weeks fever in the afternoon, night sweats, decrease in weight to 115 pounds. Examination, September, 1904: Infiltration in both apices with sharp breathing and moist and dry rales during expiration; tubercle bacilli; trial injection of one-third milligram of tuberculin; highest temperature six hours after injection, 104.2; reaction disappeared after forty hours. After treatment of seven months and a half, disappearance of symptoms; weight, 142, five pounds more than patient has weighed for the last ten years: condition of lungs normal. Patient went to the country afterwards for six weeks and has been well ever since.

Case 19. Patient 40 years old; no case of tuberculosis in his family to his recollection. Contracted syphilis ten years ago, which was treated in Portland and of which no more symptoms could be found. About nine months ago severe cold, afterwards cough, which persisted, with considerable expectoration, loss in weight of twenty-six pounds; in the last two months evening fever and night sweats. Examination, February, 1905: Dullness in the left apex to the second rib; sharp breathing during inspiration, prolonged expiration with dry rales at the end of the expiration; trial injection of one-third milligram of tuberculin; highest temperature after eight hours, 103.4; disappearance of reaction after thirty hours. Beginning of treatment with one-sixth milligram of tuberculin; absolute rest in bed for four weeks. After four months no more symptoms; gain in weight twenty-eight pounds. Patient weighs more now than ever in his life; feels well; after the last injection went to Santa Cruz mountains and stayed there for a couple of months. Last examination, two weeks ago, gives normal conditions.

Case 20. February, 1905; servant girl, 24 years old. Cough, sputum, tinged with blood; night sweats; loss in weight of fifteen pounds; general weakness and shortness of breath. Examination: Tubercle bacilli; afternoon temperature, 100.2; infiltration of both upper lobes; moist rales, sharp inspiration and prolonged sharp and partly vesicobronchial expiration; trial injection of one-third milligram of tuberculin; highest temperature, 103.5; disappearance of reaction thirty hours after injection. Beginning of treatment with one-tenth milligram of tuberculin; after three months, no more sputum or night sweats; gained ten pounds; a little dry cough left; disappearance of catarrhal conditions over the lungs; after four months no more symptoms; injections stopped in August, 1905.

Case 21. Patient 35 years old; father died of phthisis. Twelve years ago patient had lung trouble, expectorated blood, sometimes continually from four to five hours; weight went down to 106 pounds; went to Los Angeles for one year and a half and expectorated blood there, but gained in weight afterwards to 138 pounds. He came to San Francisco and lost 13 pounds; one year ago a new attack of hemoptosis; ever since cough, which became considerably worse in the last year. First examination, July, 1905. Besides a systolic murmer of the heart, dullness in the right upper lobe down to the third rib; sharp breathing with prolonged expiration in the right upper lobe; rales partly moist and partly dry which became very outspoken after coughing; also sharp breathing with some rales in the left lower lobe; sputum has tubercle bacilli; night sweats; loss in weight 13 pounds; voice hoarse; evening temperatures to 100 degrees. Patient has been treated by Dr. Pischel on account of the throat. First injection one-third milligram; six hours afterward fever to 104 degrees; after thirty-six hours disappearance of reaction. Beginning of treatment with one-eighth milligram of tuberculin; after three months' treatment disappearance of all symptoms, gain in weight to 138 pounds, no more night sweats, no more cough and sputum, voice normal, general condition excellent; condition over the lung, with exception of a light dullness in the right apex, normal. Patient has been well ever since. This patient showed, immediately after the injection, a swelling of the mucous membranes of the throat, which sometimes to such an extent that he could scarcely talk, and it was hard for him to breathe for a few minutes. After about one dozen injections this symptom had disappeared.

Case 22. Young lady, 26 years old. Eight years ago hemoptosis. At that time tuberculosis of the left lung was diagnosed; best weight afterwards, 106 pounds; at the present time 83 1-2 pounds. Three members in the family of the mother died of tuberculosis. In the last six months cough, expectoration, night sweats and slight fever in the afternon to 99.5. Patient feels very weak and tired, and complains of shortness of breath. Examination, July, 1905, shows tuberculosis of the left upper lobe, sharp and prolonged expiration with moist and dry rales; tubercle bacilli. Eight hours after trial injection of one-third milligram of tuberculin, temperature 102.8; disappearance of reaction twenty-four hours after injection. Beginning of treatment with one-fifth milligram. Examination in October: Disappearance of symptoms; patient went south; has been well ever since.

Case 23. Woman, 29 years old. For about three months cough with expectoration, and in the last month night sweats and afternoon temperature to 99.8. One uncle died of tuberculosis. Patient feels very weak and tired and complains of shortness of breath. Patient lost considerably in weight and now weighs 115 pounds. Examination, August, 1905: Dullness in right apex with sharp and prolonged expiration and rales after coughing; tubercle bacilli. Trial injection one-third milligram of tuberculin; highest temperature, 103.4 degrees twelve hours after injection; disappearance of fever thirty hours afterwards. After treatment of three months, no more fever and night sweats; no more cough and sputum; the lungs entirely clear. Patient weighs 138 pounds; treatment continued three months longer.

Case 24. Contractor, 39 years old. Attack of dysentery in July, 1904, which lasted about three months. October, 1905, diarrhoea with blood in movements; patient was forced to stay in bed ever since and got up only a couple of times for a few hours; since end of December severe pains in abdomen and continual vomiting spells. Examination, January, 1906; weight, 98 pounds; patient is very weak and emaciated; four to six movements daily, with mucous and blood; night sweats. This patient has been seen by Dr. Lewitt. Microscopical examination of feces by Dr. George E. Ebright, on December 27, 1905, shows tubercle bacilli. Dr. Ebright's diagnosis was "tubercular ulcers in the small intestine or high in the colon." It agreed with the diagnosis of Dr. Lewitt and myself. Trial injection of one third milligram of tuberculin; highest temperature, 103.4 degrees sixteen hours after injection; disappearance of reaction forty hours after injection. April 1st patient had gained forty-two pounds; one normal bowel movement daily without blood or mucous; appetite excellent; patient has been out of bed for about one month and is at the present time attending to his business; feels well and appears to be in perfect health. Still under treatment.

Case 25. Chinese woman, 30 years old; father died of tuberculosis of the throat. First symptoms of tuberculosis in '98; at that time hemoptosis which lasted two weeks, more or less, with interruptions. Observed by Dr. Cheney. Patient went to Salt Lake

afterwards, stayed there nine months; felt well afterwards, until October, 1904; then cough, night sweats and frequently sputum tinged with blood. February, 1905, very bad hemoptosis; June, 1905, bloody sputum for four days; since then bloody sputum every day more or less; three months ago pains in swallowing and hoarseness. Examination January, 1906: Dullness of right apex, sharp breathing during inspiration and prolonged sharp breathing with bronchial tendency during expiration; moist and dry rales. Trial injection of one-third milligram of tuberculin; highest temperature, 103.2 degrees eight hours after injection; disappearance of reaction after twenty-eight hours. Beginning of treatment with one-fifth milligram of tuberculin. After two months, gain in weight of fourteen pounds; night sweats have disappeared; very little cough and sputum; only some sharp breathing at end of expiratory act. Ulcerations in throat, according to report of Dr. Pischel, have disappeared.

Report of Dr. Pischel: Mrs. O. K.; February, 1906. Vocal cords injected, rough, and on posterior wall a flat ulcer. Cannot speak above a whisper; swallowing is painful. After application of menthol-anesthesin emulsion, the patient is able to eat for a few hours. Every few days the larynx is being touched with lactic acid.

March 2. Throat feels perfectly well. March 16. I find in my case-book: vocal cords still injected, but nearly smooth; posterior wall smooth; voice slightly husky.

COMPULSORY REGISTRATION AND FUMIGATION, THE MOST IMPORTANT OF ALL PROPHYLACTIC MEASURES IN THE PREVENTION OF PULMONARY TUBERCULOSIS.*

By GEORGE H. KRESS, M. D., Los Angeles.

A disease which so far back as medical records go has always held the post of dishonor at the head of the mortality tables of the human race; a physical affliction so widespread that one investigator, Naegeli, claims that at some time during life 97 per cent. of all persons are infected therefrom; a scourge that at the present time is responsible for one out of every ten deaths from all causes; a plague which in the United States annually carries to premature graves a total of more than 150,000 persons, which lives expressed from the standpoint of dollars and cents means a financial loss to our country of more than 300 million dollars yearly; a disease which in our own State of California is responsible for a loss of eight million dollars annually, in that it destroys four thousand lives every twelve months, a loss of life which gives to the Golden State the highest tuberculosis mortality percentage in the Union, whereas its climatic, industrial and sociologic conditions should give it almost the lowest;—such a disease as this, threadbare though a discussion of its various phases may be, needs no apology for having centered upon it the continued consideration of an organization such as the Medical Society of the State of California, an organization that has its being, and which holds its annual meetings for the purpose of aiding its members, individually and collectively, to gain knowledge and strength in their fight against man's mortal enemies. And of these enemies to the life of man, none takes precedence over the great white plague.

The thought which this paper would bring forward and emphasize is that the most important of all measures in the prevention of tuberculosis, so far as regards effective results, thoroughness and feasibility, are compulsory registration and fumigation; further, that compulsory registration and fumigation are the foundations upon which any elaborate superstructure of prophylaxis which might be brought forward, must of necessity stand; and lastly, that the institution of these important and much needed measures must and should come about through the Medical Society of the State of California and its subordinate organizations, the various county medical associations of the commonwealth.

Speaking generally, the prevention of a disease is a warfare against its causes; and the causes of tuberculosis, like other germ diseases, are of two classes: One, the accessory or predisposing causes or all those etiological factors that make a human being a more favorable host or victim of the second or exciting or specific cause, the germ itself; the micro-organism at fault in the "great white plague" being the bacillus tuberculosis of Robert Koch.

That a diminuation in the amount of tuberculosis morbidity and mortality would result from the elimination of the accessory or predisposing factors or those causes which debilitate the individual, no one will deny. The vital statistics of large centers of population, where housing and working conditions and modes of living have been much improved during the last quarter of a century, fully attest this fact. But it would be foolish to imagine that the human race will ever reach that much desired millennium, certainly that it is to reach it within the next ten, twenty or thirty years, when because of ideal environments and modes of life, all men will be endowed with a physiological resistance more than sufficient to enable their bodies to bid defiance to pathogenic micro-organisms.

Distasteful though the acknowledgement may be, it is quite safe to say that the overworked and underfed human beings who voluntarily or of necessity live in overcrowded and underventilated workshops and homes—from which class the vast majority of the victims of the "great white plague" may be said to come—are not apt to experience in the next few years an excessive amelioration in the hardness of their lot; for selfishness, ignorance and criminal carelessness remain, and give every promise of remaining for some time, as mighty forces in this world of man. It is true that progress in the way of more hygienic workshops and homes, and in the hours of labor, is constantly being made, but this progress is not, at the present time, and for some decades to come will not be sufficiently great to be anything but what might be called a minor factor in a scheme that would entirely prevent tuberculosis.

The fight against tuberculosis must, then, in the first instance, be a fight against the exciting or specific cause of the disease, the bacillus tuberculosis, and it is necessary, therefore, to consider the sources

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*To have been read at the Thirty-sixth annual meeting of the State Society, San Francisco, April, 1906.

and the manner in which this germ enters the human host and induces infection.

The concensus of opinion among medical men today is that the infection of human beings with tuberculosis can come from either human or bovine sources, the researches of Koch and Shutz, however, indicating that only in exceptional instances is the infection to be traced to cattle. Since the destruction of herds having the perlsucht would be exceedingly costly, the efforts so directed would hardly be repaid, so far as a decided diminution in tuberculosis morbidity and mortality are concerned, and a decided reduction in tuberculosis morbidity and mortality is that for which the world is striving.

Robert Koch put this thought in excellent form when at the British Tuberculosis Congress in 1902, at which time he promulgated his views that only in rare instances was bovine tuberculosis transferable to man, he committed himself as follows in the concluding paragraph of his paper: "In this connection, I can only repeat what I said in my London address of 1901: The fight with tuberculosis must not be fought on wrong lines, if it is to have a real result. It must aim at shutting off the chief, indeed we may say almost the only source of infection. This is those consumptives, who in consequence of the unfavorable conditions under which they live or because they obstinately set aside the simplest rules for the prevention of infection, are a danger to their companions."

In these few words by Robert Koch, we may say we have the keynote of our struggle against the great white plague. To carry Koch's thought further, we ask ourselves in what special manner are these consumptives of whom he speaks, dangerous to their fellows, and how, without being inhumane to them, can we eliminate them as factors dangerous to the public health, particularly of the public health of our own State of California?

Consumptives are a menace to the health of their fellows, because the sputum of a single such individual may contain in twenty-four hours not only millions but several billions of the bacilli of tuberculosis. These bacilli, according to the physical environment into which they are thrown, retain their virulence from a few hours to months; sputa containing the germs, losing its virulence in a few hours, if exposed to sunlight and air, but retaining its virulence for days or even months, if expectorated in dark, damp rooms, where there is little sunlight or poor ventilation. Since the dried sputum in the form of dust may have myriads of bacilli clinging to it, it is easy to understand how persons who occupy rooms or beds recently vacated by consumptives, must of necessity inhale the germs, and if these persons be below par physically or the germs of unusual virulence, how such an experience may lead to infection.

The sputum, then, in the great majority of instances, is the medium through which infection is carried from one person to another, and the task of preventing the disease, therefore, practically narrows itself into a proposition of rendering the sputum, and especially the sputum found in unsanitary rooms where consumptives have lived, innocuous. Keeping in mind this most frequent of all modes of infection, it is easy to understand why tuberculosis may justly be styled both a house and a filth disease.

Two ways suggest themselves whereby sputum can be eliminated as a source of infection: One, by segregating consumptives and so preventing their sputum from ever reaching their, as yet, non-infected fellows; and two, by non-segregating consumptives, but by adopting such means as will destroy the bacilli in their dangerous excretions.

A moment's thought will demonstrate the impossibility and impracticability of the segregation method as a means of preventing tuberculosis on a large scale. In California, 4,000 persons die from pulmonary tuberculosis every year, and to make prophylaxis effective, these persons and at least twice as many more who are in the open stage of the disease in which bacilli are being constantly expectorated, would have to be segregated; that is, be placed in special hospitals, sanatoriums or camps. The four thousand in the last stages of the disease would need to be in such institution for at least one year. The remaining 8,000 might average six months. This makes no allowance for the influx of other consumptives from the East who would come here, if such institutions were established, in the hope of obtaining free treatment in a favorable climate. In other words, 8,000 beds would be needed to care for California's tuberculous patients by the segregation system of prevention, and the equipment of the institutions of this capacity, even along the most economical tent cottage lines would cost about $300 a bed, or about $2,400,000, while the cost of food and nursing could hardly be brought below ten dollars per week for each patient, or $80,000 every week; that is, an annual outlay of $4,160,000, making a grand total of expenses for the first year of $6,560,000, a figure so generously excessive, when contrasted with the actual resources of our State treasury, or the willingness of our State legislators to expend it for such purpose, as to be virtually preposterous.

Such a universal segregation system, granted the state could afford to institute it, would be strongly objected to by consumptives, their relatives and friends, since it would mean a dissolution of family ties. Moreover, universal segregation could only be carried out by force and forcible segregation could not gain the sanction of the law, since it would not be very difficult to prove it an infringement of individual liberty. But even by this segregation system, it would be necessary to adopt compulsory registration and fumigation; the registration so that the consumptives could be segregated, and fumigation, so that the sputum could be destroyed. The reason, in fact, why there are fewer cases of infection on record in sanatoria than without, is almost entirely accounted for because the sputum is so carefully destroyed.

There remains to be considered, then, the only one other comprehensive method of preventing tuberculosis, and that is, the non-segregation plan where, however, the sputum is robbed of its danger; in other words, the non-segregation plan which has as its basic principles compulsory registration and

fumigation. (As parts of the system of compulsory registration and fumigation are included free sputum examinations by city, county or state health departments, not only to facilitate earlier diagnosis, but to repay the physicians in part for the trouble they are put to in filling out the circulars of the department and for fulfilling other requirements of the law. Anti-spitting ordinances to apply to public sidewalks, vehicles and elevators are also included, since these measures have a general educational effect at least.)

Voluntary registration and fumigation need only to be mentioned to be dismissed, since reason and practice alike have proven them to be insufficient. Take Los Angeles, for instance. In 1904, there were 645 deaths from pulmonary tuberculosis and probably four or five times that number of tuberculous sick in the city, and yet there were only 206 living cases of the disease reported, a percentage of only 31 per cent. of those actually dying or about 10 per cent. of those actually in the city, and this, too, in spite of the fact that the health office made free sputum examinations. Moreover, in voluntary notification, one layman cannot understand why tuberculosis in his family should be reported by his physician, when a consumptive neighbor is not reported by a brother physician. Experience, then, has thoroughly demonstrated the impracticability of voluntary registration.

The best way, and in fact the only way, by which to educate the profession and laity as to the prophylactic value of registration and fumigation measures is by making their use compulsory. In other words, since passing the matter up to the voluntary action on the part of physicians and laity only demonstrates its non-success, we are forced to resort to demonstration first and reason and explanation afterwards.

The need for compulsory registration and fumigation is so great, the reasons for their adoption so rational, their mode of application through health departments and officials already in existence is so feasible and could be made so economical and thorough, and the demonstration by the cities that have used them is so convincing, that a discussion of their value and practicability is really not pertinent to the question before us. It is in no sense a proposition to try a theoretical method, but one the practicability of which must at once appeal to all of us.

Herman H. Biggs, Medical Officer of the Department of Health of New York City, to whom the world is indebted for the institution on a large scale of the value of compulsory registration and fumigation, made his first recommendation in regard thereto as early as 1887. In 1893, he was able to institute voluntary notification, and in 1897 compulsory notification was established, the enforcement of this last named method having become more stringent with each year, with the result that between 1887 and 1902, New York has seen a reduction in the total tuberculosis death rate of 40 per cent., most of which reduction may be fairly attributed to compulsory registration and fumigation. Berlin and other continental cities, recognizing the value of the Biggs or New York method of compulsory registration and fumigation, have adopted it with equally excellent results. A curious point in connection with its adoption in New York was that its strongest opponents at first were the physicians, but personal experience with the system has placed them among the strongest supporters.

It is a reasonable assumption that tuberculosis cannot be prevented on a large scale, unless the public health officials know where it is to be found and what persons are afflicted with it, and compulsory registration is the only method that will give the authorities this information. This premise makes necessary the conclusion that compulsory registration is then absolutely necessary, if intelligent, rational, prophylactic measures are to be carried out in a thorough and comprehensive manner.

What, now, do the terms compulsory registration and fumigation imply?

Compulsory registration means: First, that every physician is obligated to report to the health department of his city or county every case of tuberculosis which comes under his care; second, that this information shall be considered confidential and for the use of the health department only, and that no publicity shall be attached thereto; third, that if the physician states that the sanitary conditions are not bad, and that he will verbally or otherwise instruct his patient as to the dangers of infection of self and others and the means of prevention thereof, his patient will be in no manner approached by the health department; fourth, that the physician obligates himself to report to the department any change of residence or death of patient, so that fumigation of room and furnishings may be carried out by the department; fifth, that every consumptive reported by an instituion or organization or by a physician who states hygienic conditions are bad, will be visited by a deputy from the health departemnt, who will institute measures to improve the sanitation, as well as instruct the patient in means of prevention; sixth, that no placard is ever placed on the house, or that publicity of any kind is ever given to the case.

In brief, compulsory modification means that the health department is enabled to locate every person afflicted with tuberculosis, and if hygenic conditions are bad, at once to rectify the same and keep patient under surveillance; and if hygenic conditions are good, then, to fumigate and disinfect the room and furnishings when the patient moves to some other locality or dies. The system is, in fact, nothing more than effort to kindly, and without inconvenience, embarrassment, or distress to physician, patient or friends, instruct the infected person, and those who come into intimate contact with him, as to the danger of infection, and to render inoperative those dangers by care in disposal and disinfection of sputum and by fumigation of room and furnishings at proper intervals, all of this being done without a placard being placed on the house or any publicty being given to the work.

Since it is positively known that the great majority of consumptives were infected largely because of the lack of such measures, it becomes inconceivable, not only why any one should object to such measures on any ground whatsoever, but further,

how a body of medical men, such as the members of this Society, for instance, who know these truths, should hesitate to institute steps that would bring into being these beneficent and much needed measures.

To make compulsory registration and fumigation a positive preventative influence, the measures should be made State laws, and their application be made through State officials. This applies especially to California, where so many consumptives from the East are found residing not only in the large cities but in the smaller towns and country districts, the danger in those smaller places, in proportion to the number of inhabitants, being almost as great as in the larger municipalities. Public sentiment in the Golden State, if the comprehensive scope of the method were explained to the people, is fully prepared for the adoption of such measures. The attempt of some of our State legislators, a few years ago, to initiate a State quarantine against Eastern consumptives (a foolish, impracticable and inhumane measure) is an evidence of the feeling of the lay citizens of California that something should be done to protect the health of native born and of such citizens as come here free from any taint of the great white plague.

San Francisco, Los Angeles, Sacramento, and other cities and towns throughout the State, all have their slum districts or at least their crowded, filthy quarters, where a certain portion of their citizens live. There is no doubt in the writer's mind, that if a careful investigation were made of the distribution of consumptives in California's cities, it would be found that the tuberculosis morbidity and mortality was highest where the crowding and filth conditions were greatest. Some investigations made by him last year, shows that the Los Angeles wards having the highest mortality from tuberculosis were wards seven and eight, ward seven having a population per acre of 20 persons, and ward eight of 17 persons; but in ward eight (the plaza district—Chinatown—wholesale district ward) although the density per acre was less, the houses were much more crowded and the filth conditions were greater, and this was reflected in a tuberculosis mortality rate of 480 per 100,000 persons in ward eight as against a rate of 261 for ward seven. It is curious to note, also, in this conection, that the races having the highest mortality in Los Angeles are the two races living under the most unsanitary conditions, viz: the Mexicans, who had a death rate of 770, and the Russians, who had a death rate of 650 per 100,000 persons.

Let no one, therefore, delude himself with the thought that California's climate makes impossible the infection of native born and healthy citizens. It is true that we have ten or twenty fold as much tuberculosis within our State confines at the present time than would be existent under natural conditions, i. e., without the introduction of an excessive number of consumptives from the East, but that only means that the danger of infection, if hygenic laws be violated, is thereby increased ten or twenty fold.

Consumptives, as was shown in the writer's analysis of Los Angeles conditions in relation to tuberculosis, live in the cheapest lodging and and eating houses, and the races that have the highest mortality rates live in the most unsanitary portions of the city, precisely the conditions most favorable to the infection of a large number of other persons. We know that the climatic factors that have a germicidal action on the bacilli of tuberculosis are the oxygen of the air and sunlight, and air and sunlight, owing to the disgraceful lack of building laws in California, are as effectually kept out of the lodging and tenement houses of our state, as they are in New York, which means virtually, that an infected room in a crowded tenement or lodging house in Los Angeles or San Francisco is in every way as dangerous to the public health of Los Angeles or San Francisco as their counterparts in one of New York's slums is to the public health of that city.

The fact that the greater part of California's consumptive sick and dying are to be found in California's most unsanitary houses, is worthy of emphasis and no measures can ever reach those places so effectively and so thoroughly as can compulsory registration and fumigation. Our state, county and city health officials can initiate these measures without much extra cost or work. Compulsory registration and fumigation needs for its inauguration no machinery but what is already in existence. The largest proportion of the work would in fact be done by physicians. The only expense to the state would be the additional record books, perhaps a mild increase in clerk hire, and the cost of fumigation apparatus, disinfectants and deputies to take charge of this phase of the work. The entire annual cost could not run into very many thousands of dollars. In fact, ten thousand dollars yearly should be ample to start this work.

And for this ten thousand dollars, we know not how many human lives would be saved. But granting a human life is worth only $2,000 to the state, if ten lives were saved yearly, the state would not have spent the money in vain. That more than ten persons are annually infected in Los Angeles, there is in the writer's mind not the least doubt. If virtually 25 per cent. of the consumptives who die in Los Angeles come from the filthy, unlicensed and non-regulated lodging houses, then 50 per cent. of the morbidity is probably to be found in such places. If, in other words, six hundred or more consumptives are constantly living in half that number of houses in Los Angeles, houses where there is a constant coming and going of transients, how can we escape the conclusion that native born and healthy citizens and visitors must be constantly in danger of infection? Is there any reason why a virulent germ placed under the same favorable environment in Los Angeles as in New York City should not be just as virulent in the one place as in the other? It may be pleasant to one's feeling of state loyalty and pride, to imagine that California's climate has this wonderful power in virulence reduction, but it certainly is neither logical nor scientific to make such a statement.

In addition to the lives saved by compulsory registration and fumigation (we cannot even approx-

imate the number scientifically, since our ignorance of the situation, through lack of proper statutes conscientiously enforced, gives us no figures on which to base conclusions), the system would be the most powerful factor that could be brought forward in the way of educating the citizens of this great commonwealth as to their proper attitude toward the disease. Compulsory registration and fumigation would at once reach all consumptives, a condition to be sought for above all others, and because we have so many consumptives in our state, the methods and meaning of preventive measures would soon be knowledge possessed by all citizens. And as a necessary corollary to this knowledge, would follow a more intelligent interest in and a demand for all hygienic and sanitary measures of whatever nature.

Have we any right to ask for greater benefits than these? Are there any other measures that could do nearly as much? There can be only one answer, and that in the negative.

Gentlemen of the Medical Society of the State of California, we are both as citizens and as medical practitioners under obligations to the people of this state to take a hand in the solution of this problem. It may be truthfully said of Los Angeles, and I believe it holds equally for San Francisco and the other cities of the state, that our large amount of tuberculosis morbidity and mortality has become a real and serious menace to the public health of our commonwealth, and it is high time to begin efforts that will get the situation well in hand.

No other prophylactic measures intended to combat tuberculosis can begin to compare in scope, practicability and efficiency to compulsory registration and fumigation. They have been tried and have more than fulfilled expectations. If New York and Berlin and other continental cities needed them, California may be said to need them almost more. The time has come when they should be brought into being in the Golden State, and it seems to me that no organization in our state can claim so good a right to go on record in their favor as this Society which is in session at the present time. The Medical Society of the State of California, in fact, should look upon such action as not only a duty, but as a privilege and an honor, a privilege and an honor which should no longer be postponed.

RESUME OF WORK OF SANITATION PERFORMED BY THE SAN FRANCISCO BOARD OF HEALTH, FROM APRIL 18, 1906, TO DATE.*

By W. C. HASSLER, M. D., San Francisco.

Each one is sufficiently familiar with the memorable events of April 18th, so that it requires no review of that period for the purposes of this paper. While chaos reigned throughout the city, and it would appear that each man if he attended to his own interests would be justified, yet to the lasting credit of the inspectors of the department of public health, as if actuated with one accord, they reported for duty within one hour of the disaster. The city was arbitrarily districted and each district placed in charge of an inspector who was directed to secure volunteers, which was done. Squads were detailed to rope off walls and buildings that were in immediate danger of collapse, and other groups were stationed along the fire line to assist in the work of rescue of injured and dead.

On April 19th temporary quarters for the department of public health were established on Laguna street, and from this point the work of sanitation began.

The squares, public parks and vacant lots were packed with the stricken multitude, and without sanitary conveniences of any kind. While they were ably protected by the military, without whom it would have been impossible to successfully cope with the situation at this period, still the gravest condition presented itself. Sick and well were confusedly packed together; water supply cut off; sewers broken and no protection from the elements, which were unusually severe for this time of the year. The medical profession of this city realizing the danger, came quickly and voluntarily to headquarters offering their services, and were immediately added to the regular staff. Details were arranged for the segregation and care of the sick and injured in the various camps, and the isolation of all those suffering with contagious disease. Provision was also made for the re-establishing of the water supply, and the construction of latrines.

Conferences were planned and meetings arranged by President Ward of the Board of Health for a special health commission, which consisted of representatives from the United States Army; the Public Health and Marine Hospital Service; the State Board of Health, and the Board of Health of this City and County. These meetings were held two and three times a day, and ways and means were devised for the proper protection of the people and the rehabilitation of sanitary conditions.

Hospitals and dispensaries were organized and established. Damaged hospitals were repaired immediately, and to this end a large force of skilled labor was summoned and materials placed at their command to complete the work. The locations of these hospitals and dispensaries were given to the public through the medium of the press and the bureaus of general information.

A call was made for plumbers for the purpose of making a house-to-house inspection; to shut off the water in houses where the pipes were found broken; to seal the toilets; to make temporary repairs in sewers and pipes, and to assist the Spring Valley Water Company in stopping the leaks, and make it possible to re-establish the water supply; 638 men were thus employed.

Then came the districting of the city into three great sanitary districts, each in charge of a physician, who appointed his corps for the control of the sub-districts, and reports of the work performed daily were forwarded to the Board of Health.

Disinfecting crews, consisting of a team, several

* Read at the regular meeting of the San Francisco County Medical Society, August, 1906.

laborers, disinfectants and appurtenances for the digging of latrines, and the collecting of debris and refuse and placing it where it could be removed by the scavengers, were organized. Householders were notified to place their garbage barrels at the curb and for a period of thirty days, an average of 200 teams and 225 men were engaged in this work. This was free of cost to the citizen.

A serious difficulty confronted the city at this time, in that the Sanitary Reduction Works, where all garbage had previously been incinerated, was a total wreck. For a period of ten days the city's garbage was taken to the burned district and an effort was made to incinerate it; this, however, proved unsuccessful, and finally arrangements were completed for its disposal at sea by means of barges. An average of 700 loads were removed daily. Considering the destruction of the system of the disposal of garbage; the entire population cooking in the streets; these streets filled with debris of all kinds; teams and wagons difficult to hire, a stupendous task was undertaken and accomplished in meeting and successfully coping with the above conditions.

For the first twelve days after the earthquake and fire there were 509 dead animals removed from various parts of the city, including the burned area. These were incinerated. During the succeeding months to date, over 700 dead horses have been disposed of in like manner.

Beginning almost immediately with the establishment of camps, and the dealing of rations, was a vigilant inspection of all food supplies. To the first of August, 106,021 pounds of beef, veal, mutton, lamb, pork, fish, poultry, and many sacks of vegetables and boxes of fruit were condemned and destroyed as unfit for food. Coincident with the closing of saloons an unusually large number of refreshment stands opened for business in all sections of the city. These stands offered for sale principally soda waters and a product called "cider." As these liquids were manufactured, the department was interested in the purity of the ingredients. Samples from each manufacturer were submitted to the chemical and bacteriological laboratories. The findings of the chemist revealed the fact that the soda waters were colored and flavored with coal tar extracts and dyes, and sweetened with saccharine. The "cider" was a concoction of tartaric acid, citric acid and coal tar dyes. The quantity of tartaric acid in some instances ran as high as 48 grains to the five ounces, which is the usual amount served in a five-cent glass. The report of the bacteriologist showed these products to run exceptionally high in bacteria; in many cases fermenting gas, and growing upon Parietti and Ellsner's media, which warranted the conclusion that the water, which formed the base of these drinks, was contaminated, or that gross carelessness prevailed in the cleaning of the containers used by the manufacturers. The Board of Health, realizing the seriousness of this situation, ordered the suspension of the manufacture of the products and the withdrawal from sale of all that was upon the market at that time. This led to the condemnation, in a single day, of ninety barrels of "cider" and several hundred boxes of mixed soft drinks. Subsequently soda waters were permitted to be sold if manufactured from distilled or boiled waters, and providing further that saccharine and coal tar colors be omitted.

Special vigilance was maintained over the milk supply. In addition to the quantity produced in this city and county, 80,000 gallons was about the daily average shipped from outside counties to San Francisco, and owing to the fact that the lines of communication were disorganized or engaged in giving their sole attention to transportation of refugees and relief stores, a milk famine seemed imminent. This condition was aggravated by the problem of obtaining milk cans, thousands of which had been destroyed, and many of those left were seized by the homeless for cooking purposes. Los Angeles and other neighboring cities contributed in this behalf until a supply was obtained from the Eastern markets. An average of 250 local dairies and dairy depots are carefully inspected each month, and close watch kept over them to see that the cans and bottles are properly scalded and washed. A sample of the water supply of each depot and dairy in the county, is submitted monthly to the laboratory for examination, and where such water shows a suspicion of contamination, the source of supply is sealed and the use of the water prohibited. In addition, a careful inquiry is instituted regarding the existence of any contagious disease occurring among the employees of the dairy or members of their families, and a special report of each dairy visited is filed by the inspector daily.

Three thousand one hundred and twelve new structures were passed upon by the plumbing inspectors of the Board of Health, and 183,610 linear feet of soil and sewer pipe were tested during the months of May, June and July; 1,132 complaints of defective plumbing were investigated and abated. The department having but four men in the field for this work, the magnitude of these figures can be appreciated only by those familiar with such work.

The Board of Health also maintains a supervision over the baths and laundries, and two trained inspectors devote their entire time to the disinfection and fumigation of places where contagious diseases have existed.

Uppermost in the mind of the board was the question of the water supply. Within three days after the fire notices to boil all drinking water were posted in the camps and other conspicuous places. At first these notices were made on a piece of board or shingle with a marking pot and brush; later, printed circulars, cards and hand-bills were distributed.

The department was in a dilemma. Our means for the examination of water, milk and food-stuffs were totally destroyed, and a like condition existed in nearly every other available public or private laboratory, and analytical work seemed out of the question. The emergency, however, was met by erecting a tent in Golden Gate Park as a temporary bacteriological laboratory, and the equipment necessary to perform the work was supplied through the courtesy of the Hahnemann Hospital. The College

of Agriculture of the University of California very generously placed their laboratory at the disposal of the Board of Health, thus making it possible for chemical examination of water, milk, etc.

During the past three months 145 chemical and 225 bacteriological examinations of water alone were made.

The first weeks following the disaster found Spring Valley water high in albumenoid of ammonia, nitrites, nitrates and chlorine; high in bacteria and fermenting considerable gas, proving that by reason of the disturbance there had been some contamination in the water mains. Careful investigation was then made of the waters stored in the lakes Pilacitas, San Andreas and Crystal Springs, also from the pumping station at Niles. The waters from these sources of supply were found potable. The repair work on the mains by the Spring Valley people was rapidly progressing, and owing to the immense number of leaks in the various sections of the city, the water system received a very thorough flushing, and subsequent examinations of the water showed a decided improvement.

In the latter part of the month of May grave suspicion again rested upon the water, which led to the belief that the reservoirs were filled with water from North and South Merced Lakes and from Lake Honda, which waters have shown in the many examinations made, to be high in albumenoid of ammonia, chlorine and sometimes high in nitrites and nitrates, due probably to the insanitary condition of the surrounding watersheds and contamination from surface sewers.

The waters from these sources have been declared unfit for human consumption, and condemned by the Board of Health. The Spring Valley was notified that exception would be made in the event of a great emergency which would render its use necessary for fire purposes.

Weekly, from six or seven sections of the city and county, bi-monthly, from the different reservoirs, the water has been examined, and in no instance, except in relation to Lakes Merced and Honda, was it found to be not potable.

The prevention of disease is the first thought in the mind of the medical man and certainly the reason for the existence of the Board of Health; hence, wherever large bodies of people are congregated, whether as the result of a calamity, or some arranged plan of centralization, the prime factor for consideration is the elimination of contagious disease. That this is more difficult where such aggregations are the outcome of a disaster is obvious, for the problem concerns not only the unfortunates, but the environs of the unaffected.

On April 18th there were sixty-five cases of variola in the Isolation Hospital, and seven or eight patients quarantined in private houses. The number of cases of diphtheria, scarlet fever and measles was comparatively small. The typhoid fever cases numbered seven, apparently a very low record and due to the fact that reports of this disease are seldom received from the profession. As already stated a rigid inspection was inaugurated at the outset to locate and place under control the developed cases, and every effort exhausted to track and keep under observation the contacts. With people quartered in every available park, lot or street, and hundreds crowded in basements, stables and like places, the task was tremendous. Personal responsibility and thought of self were submerged, no doubt due to the terrors they had faced or the losses sustained. Another source of menace was a class of misguided people who have no faith in the doctrine of Esculapius, but treat their sick after the manner of dogma. Illustrative of this is the case of a refugee living on Page street, who was by chance found on the street suffering with variola, and in the advanced stage of desquamation. At this time he was engaged in peddling doughnuts in the various camps. He was quarantined in his residence, but too late, for not only did every one of the fifteen inmates, all of the same cult, fall victims to this disease, but forty other cases are directly traceable to him. To-day we have but ten cases of variola in the hospital.

Typhoid fever was at all times the disease that received the major share of attention from the standpoint of prophylaxis, being the sequence logically expected in so complete a revolution of the mode of living of the population of an entire city, and is to-day the disease principally considered by the Board of Health. An attempt to eliminate the danger of infection by water, which is naturally suspicioned, was the first work. A careful and thorough inspection of foodstuffs followed. The latrines, which numbered hundreds in every conceivable part of the city, were systematically disinfected, with a view of limiting the menace from flies.

During the month of May we recorded sixty cases of typhoid, fifteen of which had their origin in Tennessee Camp, in the Presidio Reservation. Anticipating the probability of an epidemic, the Joint Board Commission erected in Golden Gate Park a contagious pavilion, which was intended to be used wholly for typhoid patients. This, however, has never been opened, for the reason that, beginning with the first week in June, a perceptible decline in cases was noticeable. At the end of June the total for the month numbered thirty-five. This marked reduction and the reports from the laboratories on water and milk was certainly reassuring. About this time the disinfecting squads were diverted from the latrine work for the purpose of moving and concentrating small camps of refugees. This work was continued until about the middle of July, when the situation again became alarming on account of the multiplication of typhoids reported. In order that there should be no error of diagnosis of cases reported, a Widal test and diazo reaction were requested in every instance, and if possible a leukocyte count, before the report was accepted as typhoid. The chemical and bacteriological findings on the water again submitted proved negative, and yet the number of cases daily increased. A review of the ground revealed that some other factor was responsible for the continued spread of the disease. Inspection showed that the large public relief kitchens located in the camps were unscreened and open to the dirt, dust and invasion from flies; myriads of the latter were found in every portion of

and upon everything in these kitchens. In many instances latrines were not far distant, and these were likewise uncovered and uncreened. Investigation and inquiry proved that many refugees were careless in the disposal of excreta, throwing it on adjacent surface soil. This became an added menace, as quite a number of the cases were of the ambulatory type. From one such patient whose tent was in Garfield Square were traced twelve cases.

It is not intended to claim that the camps or camp kitchens are the *only* source of infection, although 151 cases are directly traceable to camps; 30 cases to sources outside of the city and county, and nearly 40 are case to case infection and rated as contacts. A part of the remaining number are no doubt due to the use of infected spring and well waters, which were used in spite of all warnings. The balance of the cases it was impossible to trace the source; some,however, give a history of having eaten in relief kitchens, but owing to indefinite and inaccurate data they cannot be included in camp cases.

To verify our conclusions that the infection was fly-borne in the majority of the cases, an elaborate set of experiments was made. An agar plate was exposed at a distance of ten feet on the windward side of the tent of the patient mentioned as living in Garfield Square, and after allowing several flies to touch the plate the dish was sealed and taken to the laboratory. After twenty-four hours of incubation it showed staphylococci; streptococci; bacilli resembling coli communis, and putrefaction rods. Further segregation showed the culture to ferment a large amount of gas and to grow on Parietti and Ellsner's media. Second and third test cultures were taken from the relief kitchen, distant about 250 feet, and showed the identical results obtained in the first plate. This led to the securing of similar cultures from every established camp and relief kitchen in the city, as well as from numerous open restaurants and street vendors' stands.

Appended herewith are some of the results obtained.

The total number of cases reported in July was 158, making a grand total from April to August 1st, of 289. For the past fourteen days there have been fifty-seven cases reported; this is a marked decrease over what was expected, for in the last two days of July, thirty cases had been verified. We believe this decrease due to the strenuous work of the department for the last three weeks. In this time every latrine in the city has been roofed and darkened and thoroughly disinfected. Many have been abolished. Contacts have been closely followed, and vigorous sanitary measures adopted on all premises where cases were found.

To cope with the situation the Department of Health has recommended to the Relief Committee the following:

1st. Establish automatic flush Reed troughs in all sections where the main sewers in the streets are intact; doors and ventilating spaces of latrines screened. This to meet the wants of workmen employed throughout the burned district, as well as the needs of scattered refugee camps.

2nd. Wherever earth latrines must be maintained, change the design and size, and keep them properly disinfected.

3rd. Maintain a sufficient number of latrines to prohibit the depositing of night soil in any other place.

4th. In the creation of a complete organization, we suggest that the city be divided into sixteen districts, each of which to be in charge of a medical inspector, who will be furnished with a team and two laborers and necessary apparatus for scavenger work. The wagon will be further equipped with a barrel or tank, with force pump and 100 feet of small hose attached. The barrel to contain a 5 per cent. solution of carbolic acid, which is to be sprayed upon the surface soil throughout the camps and other areas where flies accumulate, or infection be present.

5th. The use of small sulphur candles in all tents of the permanent camps, under the direction of the camp commander and surgeon, for the purpose of killing the flies.

To this end the Board of Health has asked the Relief Committee for a certain sum of money.

The board has felt chagrined at its inability to remunerate the many workers who gave their time and thought after the fire, and have labored besides in many directions in a greater or less degree since that date. There was no provision made for this financial relief and the best that could be done was a letter of thanks sent to as many as the board could obtain the names and addresses of, and perhaps many who should have received even this small recognition did not; but the intention was to uphold the respect of the profession in this small but kindly appreciation of their efforts.

In conclusion, the policy of the Board of Health has been one of urging closer relationship with the general profession. The board welcomes criticism that is leveled for a high standard of better organization in its endeavor to work out sanitary problems. The recent efforts of the Board of Health to meet and consult with the members of this Society was an earnest of the highmindedness of its policy for the betterment of our citizens.

BACTERIOLOGIC FINDINGS.

Camp 19th and Potrero Ave. (Kitchen) Bacilli resembling coli; strepto bacilli; streptococci; staphylococci; large amount of gas; grows by Parietti & Elsner's media.

Camp 19th and Potrero Ave. (Kitchen) Plate No. 2. Spore bearing bacteria ferments much gas and grows by Parietti & Elsner's media.

Camp 19th and Potrero Ave. (Kitchen) Plate No. 3. (Results same as Plate No. 2.)

Kitchen, Duboce Park. Spore bearing bacteria; numerous small cocci; bacilli resembling coli; ferments large amount of gas; grows by Parietti & Elsner's media.

Kitchen, Duboce Park, Plate No. 2. Bacilli resembling coli; putrifactive rods; large amount of gas; grows by Parietti & Elsner's media.

Kitchen at Camp Lake. Bacilli resembling coli; spore bearing bacteria; large amount of gas; grows by Parietti & Elsner's media.

Nieto Kitchen, Precita Square. (Taken from meat block). Bacilli resembling coli; spore bearing bac-

teria; large amount of gas; grows by Parietti & Elsner's media.

Nieto Kitchen on Bernal Heights. (Cortland & Andover). Bacili resembling coli; spore bearing bacteria; ferments large amount of gas; grows by Parietti & Elsner's media.

Kitchen at Lobos Square. Camp No. 9. Bacilli resembling coli; staphylococci; streptococci; general turbidity; large amount of gas; grows by Parietti & Elsner's media.

Kitchen at Lobos Square. Camp No. 9. Plate No. 2 Bacilli resembling coli; putrifactive rods; staphylococci; general turbidity; large amount of gas; grows by Parietti & Elsner's media.

Kitchen, Harbor View Camp. Bacilli resembling coli; spore bearing bacteria; general turbidity; large amount of gas; grows by Parietti & Elsner's media.

Camp Kitchen, Washington Square. Spore bearing bacteria; slight turbidity; bacilli resembling coli; no gas; grows by Parietti & Elsner's media.

Canton Restaurant, Chinese. (No. 7 Brennan Place). Cocci bacilli; staphylococci; bacilli resembling coli; large amount of gas; general turbidity; grows by Parietti & Elsner's media.

Golden Gate Cafe. (634 Golden Gate Ave.) Spore bearing bacteria in chains; staphylococci; bacilli resembling coli; large amount of gas; general turbidity; grows by Parietti & Elsner's media.

Yellow Wagon, 868 Market St. Bacilli resembling coli; bacilli resembling Diphtheria; no gas; no growth by Parietti & Elsner's media.

Globe Cafe, 618 Franklin St. (Dr. Furey). Staphylococci; spore bearing bacteria; putrifactive rods; large amount of gas; general turbidity; grows by Parietti & Elsner's media.

Edilveis Rest. & Grill, (4th St., Market.) Staphylococci; bacilli resembling coli; no gas; general turbidity on glucose boullion; no growth by Parietti & Elsner's media.

Golden Leaf, 2412 Market. Spore bearing bacteria; bacilli resembling coli; no gas; moderate amount of turbidity; grows by Parietti & Elsner's media.

Pioneer Restaurant, 4th and Jessie. Putrifactive rods; bacilli resembling coli; staphylococci streptococci; no gas, no turbidity. Grows by Parietti & Elsner's media.

Charter Oak Dairy, 816 Naples. (From milk room). Putrifactive rods; no gas; slight turbidity on glucose boullion; no growth by Parietti & Elsner's media.

California Dairy, 700 Amazon. (From milk room) Staphylococci; putrifactive rods; much gas; general turbidity on glucose boullion; no growth by Parietti & Elsner's media.

John Escloses, Henrietto & Hanover. (From milk cooler) Staphylococci; putrifactive rods; no gas; slight turbidity on glucose boullion; no growth by Parietti & Elsner's media.

Colma Dairy, 615 Morse St. (V. Miller. From entrance to milk room.) Bacilli; spore bearing bacteria; bacilli in chains; much gas; general turbidity; no growth by Parietti & Elsner's media.

UROLOGY.*

By M. KROTOSZYNER, M. D., San Francisco.

It seems a fitting occasion to open the joint meeting of the Pacific Coast Branch of the A. U. A. and the Urological Section of the Medical Society of the State of California with a few words from the chair, which should be occupied by the lamented Dr. Chismore, the pioneer in our work on the Pacific Coast.

Dr. Chismore was a genial man, an excellent observer at the bedside, who was always guided by that admirable maxim, never to hurt his patient. In his special field he had acquired a delicate touch and unusual skill. His improved lithotrite and his successful work in stone-crushing earned for him a more than national reputation, by which the profession of the Pacific Coast and that of our own city was benefited.

The demise of this rare man is as great a loss to our branch of medical science on this Coast as that of Max Nitze, who in the midst of his work was suddenly stricken by an untimely death, was to urologists all over the world. For since the cystoscope sent its illuminating rays into the bladder, since we learned with its aid to observe the character and color of renal secretion at the vesical ureteral openings, since at last we are enabled to enter the ureters with catheters and study the function of either kidney from separate samples of their secretion, since that time urology has become a real science and an important specialty of medical knowledge.

So rapid are the advances in urology at present that only the physician who pays special attention to the literature of this branch and has acquired a good training in the use of its complicated apparatus, can keep up with the quick pace of progress. Never, for instance, will the general surgeon be able to benefit his patient suffering from a complicated affection of the urinary tract to the same extent as the trained urologist, even though the surgical technic of the former be of a higher standard. In many instances where the general surgeon will perform a capital operation, like the opening of a bladder or the removal of a kidney, the urologist may by painstaking conservative treatment and aided by instruments of precision, effect an improvement or a cure. In other words, the indications for surgical interference in diseases of the urinary tract can only be formulated, at present, by a well-trained urologist, and here as well as elsewhere in medicine the saying holds true that he who diagnoses better will be able to effect a better cure.

In no branch of medicine do the borderlines of its different branches come so much into play as in urology. The successful specialist in urology is the man who has spent some time in general practice getting a good general and especially a surgical training and then has gradually drifted into urology. That was the career of our best known urologists.

Urology has not found the attention in this country and has not held the rank it merits. The so-called genito-urinary surgeon was expected to treat venereal diseases in general. The larger surgical lesions of the urinary tract (bladder, prostate, kidneys) were treated by the general surgeon, while the affections of metabolism, the nervous disorders of the urinary organs, etc., were supposed to be the domain of internal medicine or neurology. This state of affairs has not materially changed, at least so far as this Coast is concerned. Only a few hospitals in this city have urological services, and most

* President's address read at the joint meeting of the Pacific Coast Branch of the A. U. A. and the Urological Section of the State Medical Society, San Francisco, April, 1906.

of these are still run on the old pre-cystoscopic basis as so-called genito-urinary departments, to which all cases of venereal and skin-diseases, including syphilis, are referred.

Since the foundation of the American Urological Association an effort has been made to reform the profession and win the managers of hospitals and medical colleges to the idea that urology means the study of diseases of the urinary tract, and that a urologist is a physician who considers as his special field of knowledge and study all matters pertaining to pathological conditions of the urinary organs. Syphilis is excluded by the A. U. A. from its discussions. Also the combining of skin diseases with urological affections cannot henceforth be tolerated, since both fields are strictly divided, and since each of them demands the entire energy and time of one man if he wishes to keep up with the steadily growing literature and technical advances in either of these branches.

The truth of this state of affairs has been recognized by the profession of all civilized countries and in the east of the United States. Several years ago the former *American Journal of Dermatology and Genito Urinary Diseases* was divided into two periodicals, one of which, the *American Journal of Dermatology*, is exclusively devoted to skin diseases, while the other, the *American Journal of Urology*, as the official organ of our national Urological Association, deals solely with urological matters.

The formation of the Pacific Coast Branch of the National Urological Association was a further rational step towards offering a center for scientific improvement and the free discussion of urological topics to those medical men residing on the Pacific Coast who are especially interested in its progress. A former meeting has demonstrated the fact that we have sufficient talent in our midst to make our transactions scientific and profitable. This session that we commence today marks, therefore, an important event in urology on the Coast. Our field is rather young, and many conservative men in the profession look askance upon our claims and pretensions. Let us show them that medicine in general and that above all human sufferers will be benefited by our work. Our branch of medicine is still in its infancy; we are in the happy position to be able by our work, by our observations, by our suggestions for improvement of instruments and methods of investigations and treatment to help to build up and to quickly push along our specialty to that high position justly its due.

More and more urology, which until a few years ago was looked upon as a mere side-issue or a negligible quantity, has forced its way to the front and today it should have an equal rank with gynecology on the curriculum of our colleges. Recognizing the necessity of division of labor and concentrating our energies toward a special field in medicine, we must not forget, though, that no specialty can be separated from its mother soil without ultimate detriment to its progress and without danger of becoming one-sided. From this standpoint we invite all our colleagues, the general practitioner as well as the specialists of other denominations, to our transactions and discussions, that we, mutually, may be benefited.

Would that the work and the discussions of this society might always be inspired by the true spirit of scientific research, by harmony and good fellowship.

THE SUBORDINATION OF MEDICAL JOURNALS TO PROPRIETARY INTERESTS.*

By J. H. SALISBURY, A. M., M. D., Chicago.

It would be difficult to overestimate the important influence of medical journalism on the opinion and action of the medical profession. The medical school is attended, as a rule, but once in a lifetime; the meetings of the medical society are usually infrequent, but the medical journal, like the newspaper, is an ever-present friend whose influence and advice are potent for good or evil. Whoever gains control of the medical press goes a long way toward securing a paramount influence on the entire medical profession. The control of the medical press by the proprietary medicine interests is, therefore, a matter of vital interest to every physician, and it is worth while to inquire how great and of what character this influence is.

PROPRIETARY ADVERTISEMENTS.

An extensive influence of this sort may be assumed from the fact that most medical journals are supported by advertising, and, while the necessity of this may be deplored, it is nevertheless an important fact to be reckoned with both in considering the reason for the subserviency of the medical press and in suggesting a remedy for the nostrum evil. It can be asserted as an axiom that no paper supported by advertising can pursue a policy antagonistic to the interests of its advertisers and retain their patronage which is necessary to its existence, and no paper dependent in part on advertising can escape the influence of its advertisers. A liquor advertisement would appear with bad grace in a prohibition paper, and it may be assumed that a journal which accepts the advertisements of proprietary preparations will observe a certain discretion in its advocacy of pharmaceutic reform, confining its denunciations to glittering generalities, firing blank cartridges, or at least directing its aim so as to be sure not to injure its friends.

That the majority of American medical journals cannot in the nature of things be unfavorable to proprietary medicines is evident from an inspection of their advertising columns. Practically all medical journals carry advertisements of proprietary remedies. In one journal which is supposed to exhibit the highest ideal in the ethical conduct of medical journalism, twenty out of the thirty-six advertising pages were devoted to advertisements of proprietary articles; in another of high grade nine out of twenty-six pages were used in the same way.

SUBSERVIENCY OF MEDICAL JOURNALS.

The extent of the subserviency of medical journals to the proprietary interests is further shown by the fact that a large proportion of medical journals

* Reprinted from the Journal A. M. A.

have a department devoted to advertisements under the guise of reading notices, commercial news, therapeutic notes, etc. No pretense is made that these are genuine scientific articles, and it is tacitly understood that these columns are under control of the advertisers and that the articles are disguised advertisements. We note that financial advantage or necessity has compelled the paper, presumably devoted to the propagation of truth, to descend to the utterance of a commercial fiction, if we may not call it by a harsher name, and to become a silent partner to what frequently amounts to a scientific and commercial fraud.

A number of journals do worse and put such material under the heading of "Abstracts" and print so-called select original articles culled from other journals. This department is the reading notice concealed under a name which leads the reader to expect valuable summaries of medical progress and seems to put the stamp of approval of the editor on its contents.

In the next step, taken by a considerable number of journals, the editor and his contributors exhibit themselves as the willing slave of their proprietary master, having been bought and paid for. The write-up and the apologetic editorial exhibit the lowest stage of journalistic depravity. An estimate of the extent of this evil can be gained from the statement of a recent writer that the journals subsidized by the proprietary interests comprise one-half of those published in the United States.

I went through twenty-seven medical journals, covering the past six years, and found one preparation, viz., "peptomangan," as the subject of forty-five original articles. In addition there were six editorial indorsements of the remedy. One editor went so far as take up arms in defense of his patron against the aspersions of a rival firm which were likely to injure the business. In a somewhat cursory survey covering about fifteen medical journals for the last five years, I have found about 300 so-called original articles written in praise of the various proprietary remedies, and the list is by no means complete. I think that the evidence is sufficient to show that the medical press of the country is profoundly under the influence of the proprietary interests.

It may be objected that it is only the second-class journals which publish such articles. This is not entirely true, for such articles have been repeatedly found in the columns of some of the best periodicals in the country, although it must be said that there is a marked difference between different journals and their apparent relation to the nostrum traffic. Some openly uphold it; others silently consent; while a few, but an increasing number, positively condemn it. It must be remembered that so-called second-class journals have, individually, a considerable and, collectively, an enormous circulation.

DEGRADATION OF MEDICAL JOURNALISM.

We have next to inquire what is the character of the influence exerted on medical journalism by these nostrum vendors?

The scientific and practical value of the literature is markedly lessened. The clinical reports presented in behalf of some preparations, peptomangan for instance, make the claim and have the appearance of giving the results of careful clinical and experimental work. The sincerity of the authors of some of these articles we are not disposed to deny, but the scientific value of their work is much impaired by its one-sided character and the lack of comparison and critical judgment. After an imposing array of blood counts, clinical histories, etc., the only fact established is that a certain set of patients recovered under the use of a preparation of iron. No comparison is made between the results obtained by the use of other forms of iron and those due to the administration of the remedy under consideration, and when such a comparison has been made, as was done by the Commission for the Study of Uncinariasis in Porto Rico, the results, not particularly favorable to peptomangan, are distorted to form the basis of the claim that the United States government authorities have endorsed a proprietary preparation.

The result of inserting such one-sided articles is to encumber the reading pages of the journal with worthless stuff and to create an uncritical habit of mind in the reader. Nothing of careless reading can be expected of the doctor who peruses such an article as "The Skin, a Factor in Diagnosis" to find it an advertisement of a nostrum, or who hopes to learn something of value in regard to prophylaxis from "How to Assist Young Girls to Womanhood," but finds that the sum of the author's valuable advice is to give them peptomangan! Finding his time wasted in the careful reading of such articles, it is very natural for him to give little attention to the really valuable matter which may be interspersed between proprietary articles. What shall we say of the scientific character of a journal made up of such articles as that of W. C. Derby on the "Treatment of Chronic Gastritis?" This author tells us that he easily verified his patient had chronic gastritis, but does not think it necessary to tell us how he knew, and gives no gastric analyses nor blood count. He does tell us, however, that he succeeded in the treatment by means of zymacin, nuclein, papain, manola tonic, bovinin and sanguiferrin! Surely, with such an equipment the Pharmacopeia may be relegated to the ash box. American medical writers have occasion to blush for some of their confreres.

The journal which is ready to sell its columns to the nostrum vendor can not be relied on to give the best editorial advice or to take a firm stand on the right side where the interests of the public or its subscribers are opposed to the interests of the proprietary manufacturers. The editor of such a publication can not be a worthy leader of medical thought. And he may be expected to find his paper quoted to support sentiments that he never uttered. In a pamphlet published by the promoters of peptomangan various journals are quoted as sustaining the superiority of the peptomangan as shown in the Porto Rico trials. In reference to the journal quoted, it is found that the enterprising manufacturer has simply quoted his own advertisement at-

tributing its statements to the journal as if it were an editorial utterance!

The journals by giving their space to extravagant statements regarding the effects of such remedies are fostering blind reliance in drugs and delaying the advance of truly rational therapeutics.

WHAT IS THE REMEDY?

What remedy can be proposed for this state of things? Can we demand that medical journals shall exclude advertisements of proprietaries altogether? This would probably be too rigid a rule, but some regulation might be adopted as to the form of advertisements and the character of the remedies which shall be admitted to the advertising columns. If the consensus of opinion of the medical profession could be crystallized into some definite requirements in regard to the advertisements that shall be admitted to the pages of a reputable medical journal, we might have some criterion by which we could determine whether a journal is worthy of our patronage.

If, instead of inserting in his reading columns concealed advertisements of proprietary remedies, the space were devoted to lessons on pharmacy and chemistry, the editor might educate his readers to a point where they could rationally decide on the true value of the novelties proposed for their use without making disastrous experiments on their patients. The editor who fails to protect his readers against concealed frauds, which is the only proper characterization for many of these 'write-ups," is false to the trust reposed in him by the medical public.

HERNIA OF THE BLADDER, INCARCERATED IN THE FEMORAL CANAL.*

By CHARLES G. LEVISON, M. D., San Francisco.

Hernia of the bladder occurs sufficiently often to make it a subject of great importance. It is claimed by some authorities that this condition occurs in one per cent of all cases of hernia, and that it is most frequently found in enormous hernias with large rings. On the other hand, Kramer (Arch. f. Klin. Chir. Bd., 50) claimed to have found but one case of hernia of the bladder in 200 cases of very large hernias that he had collected from the literature. Often the first experience of a surgeon with a hernia of the bladder occurs when he has opened this viscus inadvertently, an accident not apt to happen a second time, for thereafter he is always on the alert, and when this condition is suspected, a sound introduced into the bladder generally settles the question.

One is more apt to meet with these cases if he has had some experience, with the result that the history of a hernia is more carefully recorded, special attention being directed towards the urinary symptoms; as a consequence, a cystocele can occasionally be diagnosed prior to operation. In the majority of instances, however, this condition is not recognized until the structures have been exposed.

Allesandri, in 1901, collected 223 cases of hernia of the bladder, and he showed that of these, eighteen were diagnosed but were not confirmed by operation or post-mortem; twenty-five were discovered at post-mortem, five were diagnosed and confirmed by operation, 147 were recognized for the first time at the operating table. In seventy-six, the bladder was inadvertently opened, the injury being recognized at the time of operation. In twenty-three cases, the fact that the bladder had been injured was recognized only in the course of healing by the escape of urine. In these statistics, the proportion of wounded bladders as compared with the number of hernias of the bladder is very large, and hardly represents the correct figures.

In my own experience I have seen six cases, in one of which the bladder was opened. Inquiry among my colleagues here, as well as in the East, elicited the information that they have met with this condition occasionally, some have had the experience of wounding the bladder, others have not; but, on the whole, the percentage of wounded bladders, as compared with those remaining unopened, is much less than the statistics quoted above would indicate. However, many excellent surgeons have opened bladders, and this accident is by no means a reflection upon the skill of the operator. The wounding of the urinary bladder can easily occur under the following conditions: A bladder involved in a hernia may become attenuated as a result of traction exercised by the sac; this, together with frequent overdistention, causes a decided thinning of the bladder walls, which are easily torn during their separation from the sac. The bladder is often intimately adherent to the sac; as a consequence, it may be mistaken for a fatty sac and ligated. The hernia may consist of bladder alone, with the result that the viscus is opened during the search for the sac, which does not exist. When this occurs, the gush of urine is the first evidence that the bladder has been injured. The bladder may be mistaken for a lipocele, which is often found in this region.

A suture may be passed through the bladder wall by accident, or in these days, where one of the most important developments of the radical operation for hernia has been the high ligation of the sac, a fold of peritoneum attached to the bladder may be drawn into the sac and ligated with it. These last two conditions are only recognized a few days later, when urine is observed escaping from the wound; but the latter cases, however, can hardily be classified as hernias of the bladder.

The tendency of fistulæ resulting from accidents of this sort is to spontaneous closure, if infection does not occur. This is not the usual history of these cases, as the urine does not make its appearance for a few days, and is due to the fact that the ligature occupies several days cutting through the bladder wall. By the time that this has occurred, the peritoneal cavity has become walled off, and then there is no danger of infection from this source. In one instance, a case of injury to the bladder came under my observation where silk had been used to close a rent in the bladder wall; a vesical calculus removed some time

* Read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

later was found to contain a silk suture for its nucleus.

The all-important factor in relation to this condition is the diagnosis, which can be made at times prior to the operation; surely more often than is actually done, if sufficient attention be directed to the urinary symptoms. Frequently an individual will complain of subjective sensations, such as vesical tenemus, burning upon urination, frequent micturition, discomfort when the urine is retained; the character of this fluid remaining normal. If carefully examined, the hernia will often be found larger when the bladder is distended. The patient complains of urinary symptoms, which are not relieved by any treatment. At times the pressure from the truss causes a sensation of discomfort in the bladder. He is compelled to assume a certain posture while urinating, and at times, if a diverticulum be present, the urine is passed as if two distinct cavities were being emptied; when this occurs there is a complete cessation of the flow of urine between these periods. The diagnosis is confirmed by means of the cystoscope, which should be used in every case where hernia of the bladder is suspected. In the majority of instances, however, the diagnosis is not made until the time of operation.

In a case of hernia of the bladder, that which first strikes the operator is the large quantity of fat present, together with the difficulty experienced in separating this tissue from the sac. While it is claimed that an excessive amount of fat is not always present in hernias of the bladder, yet, it is admitted, that this condition obtains in a large proportion of cases. If one has not had some experience with this condition, the tissues are apt to be manipulated considerably and an attempt is made to cut the fat away in the belief that an excess of this tissue is present. It is usually at this stage that the bladder is opened, and it is just this condition that makes one suspect a hernia of the bladder, namely, the atypical appearance of the hernia, together with the unusual amount of fat present. If suspected, the next step is the insertion of a sound into the bladder, when, if a hernia exists, this instrument will present in the wound, pushing the bladder wall in front of it. In our case, the sound could not be made to present in the wound on account of the presence of a diverticulum of the bladder, which had undergone obliteration.

In one patient I saw operated upon, the bladder was recognized by the urachus. I have observed a pulsation in three cases, which in the first two seemed respiratory in character, but I have since concluded that it must have been a transmitted impulse from the abdominal vessels. In the first case that came under my observation, it was most marked, but I did not understand its significance; in the second case, in view of my previous experience, I first thought of a hernia of the bladder on account of this pulsation, which diagnosis afterwards proved to be correct. In the case here reported, this pulsation was also present, but it was not so marked as in the other cases for reasons due to the incarceration of the hernia. In the last case, the pulsation was synchronous with the heart. According to my experience, this is a valuable diagnostic point, but is only of use at the time of operation.

Our patient was a woman of 30, one miscarriage, had never borne children; gave a history of having a lump in the side, which she had been able to replace whenever it came down. Had worn a truss for some time, but had been compelled to discontinue its use on account of the discomfort produced. On the morning of her admission to the hospital, while lifting at home, she felt the lump come down suddenly, and it could not be replaced. She commenced to vomit and experienced severe pain in the region of the mass. Being an emergency case, the first time that she was seen by the writer was when she lay on the operating table. Vomitus not stercoraceus; no evidence of shock, no facies of ileus.

Examination. A mass about 12 cm. in length by 5 in breadth, oval in shape, was found occupying the left groin, quite above Poupart's ligament, reaching almost to the anterior superior spine, and below extending into the labium majus. The mass was smooth and fluctuating, and at the labium the tumor seemed bluish in appearance and lobular, suggestive of varices that are so frequently found in that region. Percussion note dull; no tympany. An impulse was felt by some one present, but this was not confirmed by the writer. Subsequently, as was seen at the operation, this impression of impulse must have been incorrect. The diagnosis of inguinal hernia, probably incarcerated, was made; as the tumor seemed entirely above Poupart's ligament, the diagnosis of crural hernia was not considered.

Operation. Incision over the mass through a definite fascia revealed a cystic tumor with multiple cysts at its lower end, all of which were readily freed from the surrounding tissues. The sac wall was so thin that a clear straw-colored mass could be recognized as the cyst contents. When the tumor was exposed, it was felt that we had a hydrocele of the canal of Nuck to deal with, but further examination showed that the base of the mass, which consisted almost entirely of fatty tissue, passed directly into the abdomen. Then a hernia of the bladder was thought of, but a sound introduced into the bladder did not pass into this tumor. One of the smaller cysts was ruptured at about this time, and a little later the largest cyst was evacuated; the fluid was odorless, with no resemblance to urine. When the bladder was distended with water there was no escape of fluid through this channel. Great difficulty was experienced in recognizing what condition we had to deal with, as the mass was not to be reduced, and while it passed into the abdomen in the direction of the bladder, there was however, no communication with this viscus. Enlarging the incision upwards, it was seen that the inguinal ring with the prolongation of the fibres of round ligament was quite intact. This was the first evidence that we were not dealing with an inguinal hernia. As the hernia was irreducible, and as there was no other means of remedying the condition, the abdomen was opened in the median line, when it was seen at once that the bladder was drawn towards the crural canal. Slight traction on the bladder drew the hernia within the abdominal cavity, exposing a ring of the size of a 50 cent piece. This ring was immediately adjacent to the spine of the pubes and had as its borders, the pubic spine on the inner side, the pectineal line below, Poupart's ligament above and the pulsating femoral on its outer side. Of the femoral or saphenous veins nothing was seen; they had probably been pushed to one side by the tumor.

The following describes the diagnosis as interpreted by the operation findings: a diverticulum of the bladder which had first undergone obliteration, then cystic degeneration, and had become incarcerated as a hernia in the femoral canal. The blad-

der was suspended in the median line by suturing it to the peritoneum. The crural opening was closed with a silk purse-string suture passing first through the inner side of Poupart's ligament, through the fascia on the inner side of the ring, then through the pectineal muscle which formed the base of the opening, through the fascia forming the outer boundary of the ring and then back to Poupart's ligament on the outer side. When this suture was drawn tight the opening was absolutely obliterated. Convalescence uninterrupted.

MISCARRIAGE AND ITS TREATMENT.*

By W. F. BURNETT, M. D., Eureka, Nevada.

A not uncommon division of this subject is into abortion, miscarriage, and premature birth. Abortion is usually applied to the expulsion of the ovum before the fourth month, at a time when the placenta is not yet fully differentiated from the remainder of the chorion. A miscarriage, to the expulsion from the end of the fourth month, when the child is viable, and premature birth from this time to the term of pregnancy.

It is the writer's opinion that this difference should be made between a miscarriage and an abortion. A miscarriage is an expulsion of the contents of the gravid uterus before the fetus is at a viable age, and when the expulsion is not produced by criminal measures.

If the expulsion is due to a criminal procedure, then the term "abortion" should be used instead of "miscarriage." The degree of development of the ovum makes a difference in the phenomena of the miscarriage. A miscarriage at the first or second month is not similar to one of the fifth or sixth month. During the fifth or sixth month a miscarriage is very much like a labor at full term. At the first month it is similar to a painful menstruation. During the second month the pains come with some regularity, and at the third month this is more marked, and continues to become more marked as the pregnancy advances.

The course of miscarriage is pain, hemorrhage, dilation of the cervix and expulsion of the contents of the uterus. If there is persistet hemorrhage, miscarriage usually occurs, but even in spite of bleeding, which may continue for a considerable time or return at intervals during the whole duration of pregnancy, the case may go on to term.

If the cervix becomes markedly softened and the os dilated, the ovum will ordinarily be cast off, and yet the os has dilated sufficiently to admit two fingers, but thas again retracted and pregnancy has pursued its course.

Jewett has reported cases in which four or five fragments of decidua, each as large as a fifty-cent piece, were cast off in the third month of pregnancy, but the woman went on to term. If a hemorrhage is persistent; if the os dilates; if the pain is considerable, and above all if portions of the ovum are expelled, the miscarriage may be pronounced inevitable. Tarnier calls attention to another sign which he believes to be valuable as indicating an unavoidable miscarriage. This is the effacement of the rather acute angle formed anteriorally between the neck and body of a pregnant uterus. The disappearance of this angle indicates a contraction of the longitudinal fibers of the uterus and a descent of the ovum.

Before the end of the third month, while the placenta is not yet fully developed, a woman is more apt to miscarry, and also at the time for her menstrual period. Sometimes in the early months the fetus has torn through the decidua, and the chorion and the amnion are thrown off afterwards; this is more apt to be when an abortion has been produced by instrumental means.

It is well to have the expelled portions saved so you can tell what is retained. The placenta is usually retained a long time in the early months, because the attachment is strong and fatty degeneration does not occur soon. Also, in the early months the placenta is not large enough to stimulate uterine contractions. The prognosis of a miscarriage is good if everything has been expelled; if not, it is bad, the retained parts leading to hemorrhage, sepsis and disease of the uterus. While the membranes are intact, there is very slight danger of hemorrhage. A miscarriage should not be dangerous to the mother, but the after effects may be bad. Uterine diseases often follow because the women do not take the same care of themselves as they do at full term. A miscarriage is very rare without some hemorrhage; this is due to the vascularity of the membranes in the early months. The earlier the miscarriage the sharper are the pains and less the bearing down feeling. A few pains may cause expulsion, or the pains may last for days and even months before expulsion of the ovum.

In an incomplete miscarriage pain and hemorrhage will continue as long as any portion of the ovum is in the uterus. We cannot tell how soon a miscarriage will terminate; a patient may have pains and hemorrhage and not miscarry; this is known as a threatened miscarriage. Pain and hemorrhage do not always mean that a woman is going to have a miscarriage, or is even threatened with mass, or a fibroid, for a threatened miscarriage.

The treatment of a miscarriage will depend take pain and hemorrhage from a polypus, a fleshy one. She must first be pregnant, so you might misupon whether we wish to prevent or hasten the expulsion. The prophylactic treatment consists of removing the cause. The most frequent being syphilis; posterior displacements; endometritis associated with lasceration of the cervix; and the habit of miscarriage. If the father has had syphilis, place both the man and woman on anti-syphilitic treatment. If the woman, place her upon the treatment before and during the pregnancy. In posterior displacement of the gravid uterus, replace it and keep in position; the uterus must be replaced at or before the third month and held in position until the end of the fourth month. At this time the uterus has risen out of the pelvic cavity, and there is no danger of the fundus becoming caught under the promintory of the sacrum. If endometritis, it must be treated during the interval of pregnancy. If a lascerated cervix, it must be attended to. The

* Read at the Annual Meeting of the Nevada State Medical Association, May, 1906.

habit of miscarriage, an unscientific term, is only applied to a certain class of cases for which we have no better term. There is, of course, a definite cause in every case of miscarriage, but sometimes this cause is so slight or obscure as to entirely escape notice. There are many delicate, refined women of nervous temperament in whom the mere hearing of something unpleasant or repulsive will excite nausea and vomiting, because their nervous systems are thoroughly hyperesthetic, and in this class of cases the slightest cause is often sufficient to induce a miscarriage; such women are so constituted as to their nervous systems that it takes very little to make the uterus bear down and expel its contents.

It is very difficult for a woman of this kind, even under the most favorable circumstances, to go to full term without encountering some occurrence that will give rise to a miscarriage.

In a threatened miscarriage, note severity of the pains, the amount of hemorrhage, and particularly the degree of dilation of the cervix. You must by these means determine if it is an inevitable miscarriage. As a rule the hemorrhage in a threatened miscarriage is not so profuse as to cause danger to the mother; if so, you will have to resort to the use of the tampon, but there is danger of the tampon increasing the pains. Opium enjoys a well-deserved reputation in these cases and it is our sheet-anchor. Give it for its effects. A woman cannot miscarry without pains. A good routine medical treatment is a suppository of a grain of the extract of opium morning and night, and a drachm of the fluid extract of viburnum prunifolium three times daily. In the majority of cases of an inevitable miscarriage the delivery may be left to complete itself by the natural forces, unless the hemorrhage be excessive. If the hemorrhage is excessive, then use the tampon; it stops the hemorrhage, stimulates uterine contractions, and promotes complete separation of the ovum from the uterus. Before using the tampon be sure to empty the bladder and rectum. When the tampon is removed be careful not to rupture the membranes; if the finger cannot be easily passed around the ovum, introduce another tampon. The after treatment is rest as after full term. In cases of miscarriage, when the fetus has been expelled and the miscarriage is incomplete, the whole or a portion of the placenta remaining, it is advisable at once to proceed to clean out the uterus by the use of the curette. Sometimes you can remove an adherent placenta with the finger, but there is the thickened decidua which almost invariably remains behind in early miscarriages. This cannot be gotten with the finger, so there is nothing better than the curette to remove this condition. If you are unable to remove a retained placenta or parts of one with the finger, and circumstances are such that the curette cannot be used, then you will have to resort to the use of the tampon and trust to nature to rid itself of the offending contents. Before the cotton tampon or the gauze tampon is used, it is advisable to introduce a strip of gauze just within the internal os and then pack the cervical canal. This is more liable to bring on uterine contractions and expulsion than simply using the vaginal tampon.

In conclusion I wish to emphasize that a curettement in these cases should be considered a major operation and as great care should be exercised as in making an abdominal section.

SPREAD OF LEPROSY.

Dr. W. J. Goodhue, medical superintendent of Molokai Leper Settlement, after several years' work there, states that he has been able to demonstrate the Bacillus leprae (Hansen) in the mosquito (Culex pungens) and in the bedbug (Cimex lectularia).

He says: "We have since been sectioning mosquitoes taken from various leper houses, but until last June (letter dated Feb. 10, 1906), without any apparent success. At that time it appeared that we had isolated bacilli in these series of experiments, but owing to the technic employed, it was impossible to positively confirm this. This method of research was then abandoned. Mosquitoes were caught at random in leper houses, being captured with a net or sterile test tube, and the same subjected to a vapor of ether when the mosquito became unconscious and was easily caught up with sterile forceps and placed under the dissecting microscope. After repeated failures and the constant re-examination of fresh specimens, success has come as far as demonstrating the bacillus leprae in the female mosquito (Culex pungens). * * * Feb. 20. Since writing you last I have discovered the bacillus leprae in the bedbug. I believe that the Cimex is more of a factor in the spread of leprosy among the natives, than the gnat, for the following reasons, viz., the bedbug's insiduous and noiseless invasion during deep slumber of the victim, and secondly, the beds and bedding used in a leper family whether the leper is deceased or segrated, are reoccupied by clean persons without adequate disinfection and cleaning."

FEMORAL HERNIOTOMY.

A. J. Ochsner, Chicago (**Journal A. M. A.**, September 8), claims that all that is required in treatment of femoral hernia with the normal circular opening of the femoral canal is to dissect out carefully the hernial sac quite up into the peritoneal cavity beyond the inner surface of the femoral ring, ligate it high up, cut it off, and permit the stump to withdraw within the peritoneal cavity. Removing all the fat contained in the femoral canal and simply closing the skin wound completes the operation. The method is based on the well known fact that it is practically impossible to keep a circular opening in any part of the body from closing spontaneously unless it be lined with a mucous or serous membrane. In cases where the opening is congenitally not circular or is torn in traumatic hernia, or is cut in strangulated cases, this method is of course not indicated. He has used this method constantly for fourteen years and finds that, barring unusual accidents, recurrences do not happen. He tabulates the cases thus operated on from which he has been able to obtain definite reports, thirty in number, and in none of these was there a recurrence. He reviews the principal features of the more important methods used in femoral hernia, some of them in detail, and concludes that every one of them that does not utilize the principle here emphasized of leaving the femoral canal in the form of a circular opening, is faulty.

SANTA CLARA COUNTY.

The meeting of the Society held July 18, 1906, in the Auditorium of the Y. M. C. A. Building, San Jose, was one of the most successful ever known to our Society. The following members were in attendance: Asay, Hervey, Fraser, Wm. Simpson,

Harris, Park, Anderson, Trueman, McMahon, Goodrich, Jessie Simpson, Newell, Kapp, Keith, A. S. J. Smith, Jayet, Cooper, Brown, Wagner, Beattie, Grissim, Burns, Whiffen, Cothran, Miller, Lyons, and Osborne.

The regular order of business was suspended for the purpose of at once proceeding to the special lecture of the evening which was delivered by Dudley Tait, of San Francisco: Subject—"Some new problems in Lung Surgery." The lecture was illustrated and held the closest attention of the members throughout. At its conclusion Dr. Tait was warmly congratulated and the Society tendered him a rising vote of thanks as a token of their appreciation of the evening's entertainment.

The regular monthly meeting of this Society held August 15, 1906, at the St. James Hotel, San Jose, was well attended and its interesting program was participated in.

Dr. George Lee Eaton of San Francisco presented a paper on the subject of "The Treatment of Pyelitis and Ureteritis by uretheral catheterization and lavage, and microscopic urinary diagnosis." The paper was a most interesting one and was keenly appreciated by those present. Dr. Eaton's demonstrations and exhibition of special instruments and apparatus was an attractive feature.

Dr. Snow's report on the subject of "Examination Fees for Life Insurance Work," was read and briefly discussed, but passed for final action until the Committee on Fee Bill shall report. This last committee was increased by the appointment of Dr. Grissim and Dr. Walter thereto.

The following were appointed a Special Committee to take up the matter of the proposed anniversary celebration and banquet, 30th anniversary of the founding of this Society: Newell, chairman, Brown, Park, Fraser and Walter.

The next meeting of the Society will be held next Wednesday evening, September 19, 1906, at the St. James Hotel, at the hour of 8 o'clock. Dr. Fraser will present a paper: "Some Practical Considerations in the Practice of Medicine." The Fee Bill will also be discussed, and if possible to do so, action will be had in the matter of Fees for Life Insurance Examinations.

A. E. OSBORNE,
Secretary.

PLACER COUNTY.

The Placer County Medical Society held a regular meeting in the Fireman's Hall, Rocklin, on the afternoon of August 3d.

The meeting was called to order by the president at 2 p. m. Dr. Twitchell of Sacramento was the guest of the Society, and read a most interesting paper. Dr. Hembree, of Forest Hill, was elected a member. The subject of life insurance was discussed and was laid on the table, the matter to be brought up at a special meeting to be held in Grass Valley in October. Dr. Woodbridge, of Rocklin, presented two clinical cases: 1. A case of gout with symptoms of arthritis deformans, and 2. A case of carcinoma of the cervical lymphatic glands.

Dr. Mules, of Auburn, displayed the mailing cases and material supplied by the State Hygienic Laboratories at Berkeley.

Dr. Twitchell read a paper on 'Deceptions in Cases of Hysteria," every member present responded with instances in his practice. Dr. Woodbridge, an "Obstetrical Experience," recounted a case of rupture of the uterus; the members discussed the paper in reference to diagnosis and treatment. Dr. Peers, of Colfax, the delegate to the State Society meeting held in San Francisco April 17th to 18th, handed in his report. The president suggested that the meeting adjourn to the open air whilst the report was read. At 4:45 the meeting closed and the members were supplied by the Rocklin members with a liberal lunch. The next meeting will be held at Grass Valley, October 6th, at 8 p. m. All visiting physicians are cordially invited to attend.

J. H. MULES, M. D.,
Secretary.

Fraudulent Agent.

Members of the profession are warned against the operations of one G. E. Simpson, who is fraudulently taking orders for Surgery Gynecology and Obstetrics, published by the Surgical Publishing Company of Chicago and under the managing editorship of Franklin H. Martin, M. D.

Many doctors have already been victimized by this man to the extent of paying cash for orders for the journal or giving him checks payable to his own order; and this notice is published in the interest of the profession and for the purpose of putting a stop to his further operations.

MORE ABOUT THE "CANCER TROUBLE."

Dr. C. W. Saleeby does not seem clearly to understand why any one should object to his hasty announcement of a "cancer cure." In the current issue of Harper's Weekly he publishes "an explicit statement of achieved results," consisting for the most part in an elaborate apology for himself and Dr. Beard, the distinguished embryologist whose work he has so seduluously advertised. He is at great pains to point out that neither he nor Dr. Beard can possibly reap any profit from the publication of this notable discovery, that neither one nor the other is in practice as a physician, and that both are equally indifferent to the sale of trypsin and all pancreatic extracts except in so far as they serve to relieve sufferers from cancer. Moreover, he goes on to say that, far from being interested in a selfish way, he gave away all the money he received for his last paper "to answer correspondence and to purchase trypsin for patients who cannot afford to buy it for themselves," and that Dr. Beard, to the same end, "has already made great inroads upon the modest income which is the customary meed of the devoted Servant of Truth."

Now, this speaks well for the faith of Dr. Beard and Dr. Saleeby in the efficacy of their trypsin treatment, but we cannot for the life of us see that it justifies it in the least, or that their case is by any means improved because they are trustful. It was precisely because they were so trustful in their ingenious reasoning and their meagre results that the former papers on the subject struck so many sober readers as rash and entirely unjustifiable. Acquitting both of them of the slightest self-interest, it is none the less true that they chose upon the slenderest possible evidence to announce in several popular journals that a cure had been discovered for one of the most terrible diseases known to man. About a month ago we gave a brief account of the theoretical considerations upon which the trypsin treatment is based and at the same time mentioned every case of apparently successful issue quoted by Dr. Beard and Dr. Saleeby. There was not a single cure. One patient, after four weeks' treatment, was "apparently on the high road to recovery," another after six weeks' treatment was "apparently making a rapid recovery." Some "similar reports" from "several practicing physicians" were vaguely alluded to, but these were evidently the only ones known to Dr. Saleeby. In addition to these there were the two cancerous mice of Dr. Beard. One of them had unfortunately died after four injections of trypsin; the other was killed after three weeks' treatment. In both cases we are told the condition of the mice

was manifestly improved and they would "in all probability" have recovered had they lived.

Is it not monstrous that on such evidence as this we should be told of a cancer cure? In the current paper, which is supposed to contain "an explicit statement of achieved results," we looked eagerly for some further testimony in favor of trypsin, but apart from one case which is said to have progressed marvellously after three weeks of trypsin there is really nothing except that wonderful pair of mice. Is Dr. Saleeby informed of the investigations of Gaylord and Clowes? Is he aware that according to their estimate, after observing about 3,500 mice, spontaneous recovery occurs in some 23 per cent of cases? And if so does it appear to him discreet or just to base his announcement of an almost certain cure on the probable recovery of two mice?—N. Y. Evening Sun, August 30, 1906.

BOARD OF EXAMINERS, AUGUST SESSION.

Passed.

Cal. Ecl. Med. Coll. S. F., Cal.—1906, 81 1/3.

Coll. of P. & S., S. F., Cal.—1905, 76 2/3*, 79 2/9*, 80 1/9; 1906, 75, 78 5/9, 79 2/9, 81 7/9, 85 2/3.

Coll. of P. & S., L. A., Cal.—1905, 75*, 81 5/9*; 1906, 78 4/9.

Cooper Med. Coll., S. F., Cal.—1905, 81 4/9; 1906, 75, 75 1/9, 76, 76 2/9, 76 2/3, 77 5/9, 78 5/9, 78 7/9, 79 2/9, 79 5/9, 80 2/9, 80 1/3, 80 5/9, 80 7/9, 80 7/9, 81 1/3, 82 1/3, 85, 85 4/9, 85 4/9, 89 2/9.

Hahnemann Med. Coll. of the Pac., Cal.—1906, 77 8/9, 77 8/9, 78 8/9, 79 1/9.

Oakland Coll. of M. & S., Cal.—1906, 78 2/3, 85 2/9, 85 5/9.

Univ. of Cal., S. F., Cal.—1906, 78 1/3, 79 2/3, 80 1/9, 81 8/9, 82 5/9, 83, 84 8/9, 88 7/9.

Univ. of So. Cal., L. A., Cal.—1905, 76 1/3; 1906, 75 2/9, 76 1/3, 76 4/9, 77 2/9, 78 4/9, 79 1/3, 79 2/3, 80 2/9, 80 5/9, 80 7/9, 81 2/9; 81 4/9; 85 2/9, 86 4/9, 86 7/9.

Am. Coll. of M. & S., Ill.—1904, 80 5/9.

Am. Med. Missionary Coll., Ill.—1900, 78*, 81 2/3.

Bellevue Hosp. Med. Coll., N. Y.—1889, 81 2/3*; 1880, 81**.

Birmingham Med. Coll., Ala.—1903, 82 5/9.

Coll. of P. & S., Ill.—1895, 75**; 1902, 77 7/9.

Hahnemann Med. Coll., Ill.—1905, 75 7/9*.

Hahnemann Med. Coll., Pa.—1900, 82 7/9; 1905, 80 5/9.

Jefferson Med. Coll., Pa.—1902, 81 5/9.

Johns Hopkins Univ., Md.—1906, 78 2/3.

Medico-Chirurgical Coll., Pa.—1905, 79.

Miami Med. Coll., Ohio—1904, 80 1/3*.

Missouri Med. Coll., Mo.—1896, 75 4/9*.

N. W. Univ. Med. Sch., Ill.—1900, 82 2/3*; 1903, 78 4/9; 1905, 77 2/9*; 1906, 77 8/9.

Pulte Med. Coll., Ohio—1900, 77 5/9*.

Rush Med. Coll., Ill.—1902, 85 1/3; 1905, 81 2/3.

Tulane University, La.—1895, 79 1/9*.

Univ. of Cincinnati, O.—1906, 83 1/3.

Univ. of Illinois,—1898, 81 2/9; 1902, 88 2/3.

Univ. of Iowa, (Homo. Dept.)—1902, 87 1/9.

Univ. of Michigan.—1906, 79 7/9.

Univ. of New York—1882, 83 1/9*; 1893, 80 1/9.

Univ. of Pennsylvania, Pa.—1899, 75 2/9*; 1902, 79 1/9*.

Univ. of Vermont—1905, 77 2/3*.

Washington University, Mo.—1905, 75 8/9.

Failed.

Cal. Ecl. Med. Coll., S. F., Cal.—1905, 70 1/3; 1906, 70 4/9; 71 8/9.

Coll. of P. & S., S. F., Cal.—1904, 72 4/9*; 1906, 70 4/9.

Coll. of P. & S., L. A., Cal.—1905, 75*.

Cooper Med. Coll., S. F., Cal.—1903, 67 4/9*; 1906, 75.

Univ. of Cal., S. F., Cal.—1906, 72 2/9.

Univ. of So. Cal., L. A., Cal.—1906, 65 5/9, 68 7/9, 69 4/9, 72 5/9, 73 1/9, 76 1/9*.

Am. Med. Coll., Mo.—1905, 65 2/9.

Beaumont Hosp. Med. Coll., Mo.—1893, 68 1/9.

Bennett Med. Coll., Ill.—1906, 71.

Chicago Homo. Med. Coll., Ill.—1886, 69 2/9*.

Coll. of P. & S., Iowa.—1885, 70 1/3.

Columbus Med. Coll., Ohio—1891, 72 1/9*.

Denver & Gross Coll. of Med., Colo.—1905, 72 2/9*.

Hering Med. Coll., Ill.—1903, 66 8/9.

Howard University, Washington, D. C.—1889, 72.

Jefferson Med. Coll., Pa.—1870, 48 2/9.

Medico-Chirurgical Coll., Pa.—1904, 72 7/9.

Missouri Med. Coll., Mo.—1887, 65 5/9*.

N. W. Univ. Woman's Coll., Ill.—1881, 68 7/9*.

Omaha Med. Coll., Nebr.—1892, 60.

Starling Med. Coll., Ohio.—1888, 56 8/9.

Univ. of Genoa, Italy.—1905, 63 5/9.

Univ. of Mo.—1897, 67 7/9*.

Percentages.

Cal. Ecl. Med. Coll., S. F., Cal.—1 Passed, 3 Failed.—75% Failed.

Coll. of P. & S., S. F., Cal.—8 Passed, 2 Failed.—20%.

Coll. of P. & S., L. A., Cal.—3 Passed, 1 Failed.—25% Failed.

Cooper Med. Coll., S. F., Cal.—22 Passed, 2 Failed.—8 1/3% Failed.

Hahnemann Med. Coll. of the Pac., Cal.—4 Passed, 0 Failed.—0% Failed.

Oakland Coll. of M. & S., Cal.—3 Passed, 0 Failed.—0% Failed.

Univ. of Cal., S. F., Cal.—8 Passed, 1 Failed.—11 1/9% Failed.

Univ. of So. Cal, L. A., Cal.—16 Passed, 6 Failed.—27 3/11% Failed.

*Failed preceding examination.

**Failed two preceding examinations.

°Candidate fell below 60 in one subject.

Licenciates of August, 1906.

Marc Abrams, Wm. Lanier Adams, Alex. Adler, Chas. S. Arnold, John T. Ball, J. A. Balsley, Wm. Barnhart, Harry H. Beauchamp, H. F. Bishop, S. L. H. Boolsen, Fred A. Brown, N. J. Brown, N. N. Brown, Rexwald Brown, John R. Burrows, Jos. Butler, H E. Castle, Frank L. Chapline, Harrie H. Chamberlin, V. G. Clark, Geo. P. Cooper, Isabel Crowell, Sydney R. Dannenbaum, Chas. W. Decker, C. A. DePuy, Alex. V. Doran, Wm. H. Dudley, Francis B. Dwire, Chas. H. Earle, Robt. H. Eveleth, Chester H. Fairchilds, Fred. D. Fairchild, R. J. Fly, B. E. Fullmer, J. A. Gillespie, Etta L. G. Grey, F. J. Gundry, Walter G Harder, G G. Hawkins, Henry H. Hayes, Louie B. Hughes, Ella E. Huntington, S. S. M. Jennings, Chas. J. King, Elmer F. Kinne, F. A. Kinslow, Josiah H. Kirk, H. Kronenberg, C. C. Ledyard, Fred'k Leix, H. W. Levengood, John L. Lohse, Geo. L. Lynch, J. G. Lynch, David J. Mahan, Eugene G. Mattison, H. C. McClenahan, C. V. McConnico, Milton McMurtry, Guy H. Mize, C. N. Mooney, Wm. P. Myers, John G. Null, Nellie B. Null, Roscoe C. Olmstead, E. W. Parsons, Elmer E. Patten, John T. Peery, Chas. Pius, C. P. Pond, F. S. Pyle, Alex. Raymond, Ralph R. Rea, Weston H. Rice, S B. Richards, R. R. Root, Ren O. Ross, Anna E. Rude, May H. Sampson, Chas. F. Sanborn, Belle B. Sharpe, R. O. Shelton, Karl R. Sleeper, Harvey Smith, L. Carl Smith, Wallace B. Smith, Frank E. Sohler, Waid J. Stone, Robt. B. Sweet, Fred B. Tapley, V. C. Thomas, H. A. Thompson, Jas. S. Trewhella, T. S. Wasson, E. M. Wellcome, Laurence Welti, Julia A. White, Chas. F. Whitmer, Ernest E. Wilson, Jos. T. Wrenn, R. S. Zumwalt.

Remember our new address, 2210 Jackson Street, San Francisco.

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Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

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EDITORIAL NOTES.

WILLIAM WOOD & CO.

The *Journal of the American Medical Association* is indeed to be highly complimented upon the manner in which it has replied to the malevolent attacks upon the Association and upon the *Journal* by William Wood & Co., through their publication, the *Medical Record*. To those of us who know the far-reaching influence of the nostrum business and its direct influence upon such publications as the *Record*, as well as to those who read carefully Mr. Adams articles in *Collier's Weekly* and his disclosures of the manner in which the Proprietary Association of America had secured full control of the press by means of the "red clause," the attacks of the *Record* and of other so-called "medical" journals upon the A. M. A. were easily explained. Nevertheless, it was a surprise to see such a house as that of William Wood & Co., which owes its success and its wealth entirely to the better class of medical men, the class that read good journals and good books, directly attacking, and in such a patently foolish way, the organization of that very class. One would have supposed that purely commercial reasons would have led William Wood & Co., no matter how much they might dislike the present campaign for simple honesty in pharmacology, to keep a discreet silence and not to attack by distorted truth or actual and "infamous libel." Heretofore the medical profession, and very largely the members of the American Medical Association, have given their support to the publishing house of William Wood & Co. Will they continue to do so? What has this house done for the medical profession with all the money which it has accumulated from us during the past years? Has it undertaken to do even one little thing of the many good works which the American Medical Association is now doing, not alone for its members, but for the entire profession of this country? So far from undertaking to do anything for our profession, has it not gone out of its way to print slanderous abuse, untruth and misstatement about our own Association and its Board of Trustees? Is it not possible that these attacks upon our Association, in the pages of the *Medical Record,* are inspired by disappointed greed? In spite of the fact that the editor of the *Record* is ignorant, officially, that his publication has such things as advertising pages, the animus of these attacks is evidently in the fact that the illegitimate nature of many of the nostrums advertised by the *Record* is being shown up by the Association, and that consequently the day must come when all educated physicians will demand that the journals for which they pay money, shall not participate in these frauds by deriving profit from advertising them in their pages. The *Record* may think that the present fight against fraud, secrecy and dishonesty in the materia medica business is merely a transitory affair; that it will all "blow over" after a bit. It will not. Too many medical men have been educated to what some of the actual conditions of fraud and dishonesty really are to permit of the movement for honesty and truth dying out. Let William Wood & Co. take thought to itself and take heed to where it stands, lest the ground open beneath it.

OUR WICKED SAN FRANCISCO.

A short time ago our "esteemed contemporary" of Philadelphia, *American Medicine,* casually referred to San Francisco, editorially, as "the wickedest city in the United States," and incidentally made some very unpleasant remarks about its "wickedness." And this from Philadelphia! Will *American Medicine* please be good enough to tell us wherein our former wickedness mostly lay? Was it because the people were, and thank the good Lord, still are, a pleasure loving, cheerful, high-spirited, care-free lot, taking life easily and not at all with undue seriousness, getting all the fun and the pleasure out of each day that may be wrested from it, and not bothering too much about the other fellow's business or his ancestors, so long as he is a good fellow? Or was the epithet applied because of the existence of those world-famous French restaurants, where liberty was directly, and "respectability" inversely as the altitude? Surely, from Philadelphia, "corrupt and complacent" for so many, many years, some more explicit arraignment should be vouched for denying its own supremacy and designating poor skotched San Francisco as the "wickedest city in the land." Now, if Boston had called San Francisco such an unkind word, we might have smiled and said nothing. But Philadelphia! Ye Gods and little fishes! The heart and brain and solar plexus of the corruption of the most corrupt

State in the Union! We are constrained to believe that Philadelphia was trying to pay a compliment to our bereaved city through *American Medicine,* and let the world know that it desired to share its glory with its stricken—but not fallen—sister.

IS IT HARD?

Is it so very hard to tell the truth; to be just plain, ordinary, simple honest? Is it difficult to avoid lies and deceit and trickery, when dealing with physicians? Are they of such simple mind that, forsooth, it is impossible to keep from gulling them, the temptation being so great? It would certainly seem so. Some four years ago this JOURNAL began to say things about nostrums advertised to the medical profession, and somewhat later urged upon the American Medical Association the necessity for taking some action against the rapidly increasing pest of these deadly cure-alls or sure specifics. Fortunately for our profession, and the safety of our patients, the Association has taken up the work, as you know, through its Council on Pharmacy and Chemistry. Our Publication Committee, in the early days of its existence, thought it knew something of the rotteness of the nostrum or "proprietary" business; in the light of the facts being accumulated by the Council, your Publication Committee seems to have known comparatively nothing. There seems to be hardly a single manufacturer who has not in the past, or does not now stoop to the level of dishonesty, either active or passive, in his dealings with the medical profession. Some simple mixture will be put out under a new and high sounding name, and for it most exaggerated, to say the least, claims will be made. Fooled by these false claims, or by the technology of chemical ingredients of which the physician is necessarily ignorant—and knowingly the manufacturer plays upon this lack of technical knowledge—the stuff is used by physicians when if they but knew the real truth it would have no consideration. What the Council of Pharmacy and Chemistry, what the American Medical Association, what every thinking physician wants, is merely honesty of the homely or "garden" variety. Just plain ordinary truth about the things which we are asked to use and prescribe, and the properties and virtues of these things. Is that asking too much? Is the Association, or its Council, asking too much of the pharmaceutical manufacturers of this country when it asks for the plain, simple truth? Will it pay any manufacturer, in view of the serious manner in which the Association has taken up the work, and will continue it, longer to follow the practices of dishonesty, concealment, fraud and misstatement? Gentlemen, it is all up to you. Will you follow the work of the Council—a work intended solely for your own betterment and your own help—and will you see to it that such frauds as are disclosed by the Council never more receive recognition from you?

Remember our new address, 2210 Jackson Street, San Francisco.

A SINGLE ILLUSTRATION.

For instance, it is quite probable that you will not find in the approved list of "new and non-official remedies," that deliciously fraudulent and wonderful preparation, "satyria." Why? Well, if the manufacturer ever sends you one of the old pamphlets advertising this stuff, you will find therein something like this:

> "Impotency due to any cause whatever, be it orchitis, epididymitis, former gonorrhea, the result of onanism or masturbation, senility or overindulgence, is eliminated by satyria. It is of equal value in gynecologic practice. When the ovaries undergo atrophy and ovulation ceases to be accomplished, with the usual accompaniment of sterility, satyria brings about a restoration of the lost function. In addition to this it prevents further uterine atrophy and in a comparatively short time the uterus regains its former size and physical as well as physiological capacity."

This is almost as interesting and quite as true as the fairy stories about spontaneous generation of life. The next step would naturally be the claim that a little satyria, energetically rubbed into the skin of a dead person would not only restore him to life, but would make a young live man out of an old dead one. We do not believe that there is a physician in the State of California so densely ignorant as to believe this sort of rot, but that there must be some medical men in the country who do believe it, is evidenced by the fact that the "manufacturers" continue to make the stuff and to advertise it.

TEXAS ON INSURANCE.

It is with no small degree of pleasure that we note that the *Texas State Journal of Medicine,* the official journal of the Texas State Medical Society, has taken up a very energetic campaign against the cut-rate fee for life insurance examinations. The claim is being made by the companies that, because of the recent insurance exposures, and consequent legislation, cutting down the amount which may be expended to secure new business—what is called the "expense loading"—they cannot afford to pay more than $3.00 for a medical examination for a policy of $1,000.00. Let it be granted that, for the sake of argument, this is true. Then it would naturally follow that the company could afford a fee of $6.00 for a $2,000.00 policy; a fee of $9.00 for a $3,000.00 policy; a fee of $12.00 for a $4,000 policy, etc. This is figuring on the basis which the companies themselves have advanced —an expense loading for medical examination of $3.00 per thousand. But has any one heard the slightest hint of a whisper from the companies that they would pay such fees —fees which the expense loading permits and which even the new and much required legislation does not interfere with? If any such there be, we should much like to have his name and address. Not at all. You are just a poor doctor, glad to get

even the pittance which the official with the princely salary will deign to allow you. If you show a little independence, why the company can get some one else to do the work, and gladly. In this game of death insurance everything seems to have been forgotten except how to get the most money to gamble with and to pay enormous salaries to exalted officials. We published a letter from the medical director of one of the companies, some months ago, in which he said: "If the doctors will not make examination for this ($3.00) fee, we will get some one else who will." Certainly. Nice safe company for one to insure in. All that's wanted is new business, whether good healthy risks or not. Who cares, so long as that $2.00 is saved from the examiner's fee and given to the president to juggle with. It would seem that a little more honesty injected into the management of life insurance companies might not do any harm.

AVAILABLE LOCATIONS.

From time to time inquiry is made at the office of the Society either for available locations or for men to take such openings. It is a pleasure to be of assistance in these matters and we trust that no one will ever think it a trouble or a bother to the Secretary to give his aid whenever possible. Just at the present time there are two or three openings which the right man might secure and develop into good locations. If you happen to want a place to settle in, or if you wish to change your location, or if you desire to secure some one to take your place, either temporarily or permanently, just let us know. Make the office of the society a sort of clearing house for medical information of all sorts, and let this be one of the "sorts." One place which we have in mind would seem to be an excellent location for a well qualified man who desires to devote himself largely to surgery. Another offers a good opening to a man who would like to do a general country practice, with a fair share of surgery, and who has a small amount of capital—a very few hundred dollars—to invest in the present equipment. If the Secretary can serve you in any of these ways, do not hesitate to call upon him for his assistance.

BAD BOOKS AND GOOD.

No one who practices medicine, and especially no one who does much fracture work, but dreads, sooner or later, the affliction of the blackmailing malpractice suit. McCormack has said that nine times out of ten some jealous or disgruntled fellow practitioner may be found behind such suits, backing up the plaintiff, if not indeed inspiring him to sue. This is probably true, and the remedy he suggests is ideal; closer and more friendly relations between the members of our profession and more perfect and harmonious organization. Indeed this remedy of organization is no mere theory, for in Pennsylvania and New York, malpractice suits have come to be almost unknown, simply because they are investigated and defended by the medical organizations in those states. These facts being in mind, a little book entitled "How to Suppress a Malpractice Suit," by Thomas Hall Shastid, M. D., which reached us a short time ago, produces a distinct shock. The author seems to think that practically *every* malpractice suit is backed by some jealous physician, and the method for suppression which he suggests is truly kind, upright, fair, charitable and honest. It is merely this: Find out who the physician behind the plaintiff is, then find out something derogatory to him, and blackmail him into withdrawing his support. If he is, or if you can make him appear to be the unfortunate victim of some habit, let him know that you will disclose your knowledge unless he withdraws from the support of the plaintiff. Or find some disgruntled patient of the physician, and induce him, in turn, to bring a suit against the other physician. If you cannot locate any physician back of the plaintiff, try and find out whether the patient suing has syphilis; if so, and you let the jury know it at the right time, your case is won, because of the general disgust for those afflicted with this loathsome disease! Nice Christian doctrine? Not one word of more friendly relations between physicians; not a hint of the value of close organization and of concerted and friendly action; not one suggestion that is not for trickery and for stirring up more strife, bitterness and ill feeling in a profession where such sensations are only too common at best! As a contrast to this disgusting preachment, turn to Howard Kelly's life of Walter Reed. It is an inspiration. Seldom has a book come into our hands which was read with greater interest, or the reading of which left a better "taste in the mouth." It may seem, as one passes through the years of hard and unappreciated work, that such work merely for one's own mental betterment, is hardly worth while. Yet the day will come for each one of us in his own way, when the result of that work will appear in the readiness to grasp the opportunity and to do the thing that would be beyond our doing, but for the years of hard grind. It is difficult to avoid an expression of personal obligation to Dr. Kelly for presenting to our profession in such a grateful fashion the life of Walter Reed. By all means read it; you will feel the better for having done so, and you will work the better.

SAN FRANCISCO PHYSICIANS.

From all accounts, the unchecked riot of crime, of "hold up" and robbery, of looting and murdering in San Francisco gets worse rather than better as the weeks go by. It has come to pass that to be on the streets after dark is to court robbery or worse, and to visit certain sections of the city at night is almost to insure this welcome. To physicians, especially, such a condition of things is a constant menace, for the physician may be called at any time to any part of the city. Already at least one of our San Francisco brothers has been "held up," and another barely missed that distressing experi-

ence. And all this because of a grafting city administration and a venal police force. The veriest tyro of an observer knows that it is perfectly possible for the police of any city practically to suppress crime within its territory, if it really means to. Probably nine-tenths of the criminals in San Francisco could be rounded up by the police in forty-eight hours, or less, if there was any desire on the part of the police heads to do so. And yet the "distinguished citizen" is as silent as the "prominent merchant," and the average voter goes on about his business, paying but little attention to the crime about him. We have rather been expecting to see the medical profession of San Francisco, through their Medical Society, take some recognition of the danger to themselves from this condition of promiscuous and unrestrained crime, but as yet they seem to have been silent. The medical profession can wield a tremendous influence in any community if its members but decide to do so, and we would most respectfully suggest to the County Medical Society of that stricken community that some steps be taken to bring the urgent necessity for stopping the progress of unlimited crime, and the consequent danger to life and safety which now confronts every one of its members when he is called out at night, to the attention of the authorities. The police of San Francisco are directly responsible for every merchant who is killed, every citizen who is held up and robbed or beaten, every new home of vice that opens its doors in a decent neighborhood and casts infamy in the faces of respectable and virtuous women and girls. It is the duty of every self-respecting citizen to raise his voice in protest and to exert every bit of his influenec to see that the police do that for which they are paid rather than continue a criminal partnership with criminals.

REPRINTED ARTICLES.

During the nearly four years of its existence, your JOURNAL has, almost without exception, refrained from printing articles which have appeared in other medical publications. Nearly all of its matter has been original and, in passing, and without undue egotism, we may say that the original articles contributed by the physicians of this State for their JOURNAL compare very favorably with the general run of articles in the better class of medical publications, and far exceed in quality most of the matter appearing in the smaller monthlies. The *Journal of the American Medical Association* has, however, recently published some papers by men of national reputation, on the subject of the proprietary medicine question from various aspects. These articles have seemed to us so good that we have taken the liberty of reprinting some of them and in due course will reprint others. It can scarcely be disputed with any hope for successful contention, that the gross abuses that have come upon and into the medical profession through the greed of unscrupulous manufacturers, real or so-called, have been directly the result of our ignorance of many of those things which it is not only our right but our duty that we should know. In other words, the correction of the nostrum and proprietary medicine evils will follow upon and be due to proper education of ourselves. To secure this improvement, this education, it will be necessary to state, and restate and reiterate various facts, and to put them first in one form and then in another. We mortals forget very quickly. Also, many of us are pretty busy and a journal may come to hand at a time when it cannot be read; it is put aside and perhaps forgotten, so that the message which it contained did not reach the intended reader. At another time circumstances will be such as to permit him to go through his journals carefully, and then is the time when the message should be ready for his reading. This is not mentioned as an excuse, but rather as an explanation why it has seemed well to your Publication Committee to keep constantly presenting, in the pages of your JOURNAL, matter relating to the proprietary abuse. We trust that this course has found favor with you; we are grateful to know that it has met with the approval of a very large percentage of our members. These articles reprinted from the *Journal A. M. A.* are especially commended to your careful attention, as they represent the result of the conscientious study of this problem by some of the best thinkers in the country. "Read, mark, learn and inwardly digest"—and then cease from having anything to do with the horde of worthless "truck."

THE MEDICAL RECORD: AN ENEMY OF THE AMERICAN MEDICAL ASSOCIATION.

(From the *Journal A. M. A.*, Sept. 15, 1906.)

For many years the New York *Medical Record* was the leading medical weekly in America. Next to the *American Journal of the Medical Sciences,* it represented, better than any other journal, the best there was in American medicine. William Wood & Company, the owners, for nearly fifty years—practically since the present nominal head of the house, William H. S. Wood, in 1863, became a member of the firm—have conducted an exclusive medical book publishing business. The imprint of the firm has been on the title page of some of the best medical works this country has produced. This medical book and journal publishing business is presumed to have been and to be a paying one. The journal-publishing part, especially the *Record,* undoubtedly has been a source of a comfortable annual revenue.

The patronage of William Wood & Company, as medical publishers, came from the better class of physicians—those who read and think. Their journals have been of such a character as also to appeal to the intelligent in our profession. Under such circumstances, one would naturally suppose that they would have realized that the movements inaugurated by the American Medical Association against the nostrum evil, and for a better condition in the profession, would be endorsed by the thinking class of physicians—that is, by those to whom

William Wood & Company were indebted for their success in the past and on whom they must depend for their support, as medical book publishers, in the future; hence, that they would, for policy's sake at least, have supported the Association in its laudable efforts. But they have done just the opposite.

Through their periodical, the *Medical Record,* they—or their employe—have seen fit, in four editorials, to attack the American Medical Association, its officers and it present activities. Their criticisms —if these attacks may be so dignified—ramify into every phase of the Association, its management, and its work. Their object, it is quite evident, was to discredit the officers of the Association, to reflect on the Association itself and to create dissension among its members. The animus prompting them also is plain to those who know how the subscriptions to the *Record* have been falling off and also to those who have observed the mass of nostrums in its advertising pages. The House of Delegates, the Board of Trustees and all the officers of the American Medical Association welcome honest criticism and suggestions that are made for the purpose of bettering conditions, but they resent attacks made to disrupt and disorganize.

The editorials consist of insinuations and deliberate misstatements of facts and bear evidence of having been written by one who has little, if any, knowledge of the history of the Association, of the details of organization or of the work the Association is doing. These attacks should be ignored, but, appearing in a journal that in the past has been considered reliable, some of its readers have believed that there must have been some basis for the attacks, not realizing that the *Record* would stoop to malicious misrepresentations. Further, certain medical journals, for well-known reasons, have made all possible use of the matter. Knowing that their own outcries of "graft," "fraud" and "clique" were laughed at, they would now say, "You did not believe what *we* printed; now read what the *Medical Record* says."

It would be more satisfactory to quote *in extenso* from these editorials—for this would give our readers an idea of what they are, in which case no comment of ours would be necessary—but we have not the space. However, although the editorials were in the form of vague generalities, insinuations and inuendos, it evidently was the intention of the editor of the *Record* to have his readers accept the following propositions:

1. That the policy and the management of the American Medical Association is in the hands of a self-seeking "ring or clique."

This insinuation is constantly made by the editor of the *Record.* What evidence has he for such a statement? On what authority does he insinuate that the House of Delegates, composed of men elected from every state and territory in the Union and changing its membership every two years, is or can be dominated and controlled by a few men for their own purposes? Such a charge is absolutely false, is supported by no evidence whatever and is a direct insult to the representatives of the profession, who are chosen by their fellow physicians to administer and protect their interests. Never, in the history of the American Medical Association, was there assembled a more representative, fearless and independent body of men than that composing the House of Delegates at Boston.

2. That the "financial reports of the American Medical Association have been disquietingly analogous to those of insurance companies and have dealt in glittering generalities."

Had the solicitude of the editor of the *Record* regarding the affairs of the American Medical Association extended over a longer period than that of his own incumbency of his present exalted position, he would be aware that the reports of the Board of Trustees for the last few years have been far more complete and more detailed than at any other period of the Association's existence. We recommend to the editor of the *Record* a casual perusal of the Association's proceedings, not only for the current year, but for preceding years, before he attempts to misinform his readers.

3. That there is, in the minds of honest and intelligent members of the organized profession, a suspicion of "graft;" that the accounts of the Association have been "juggled;" that "more than 23 per cent. of what should have been received in dues and subscriptions remains unaccounted for."

This also is untrue, and, furthermore, it is an infamous libel on the members of the Board of Trustees, who have, without one cent of pay and at a sacrifice of their own time and professional work, looked after the business of the Association. The members of the board are men of high rank in the profession and of unblemished personal character. On what grounds does the editor of the *Record,* by covert insinuation and baseless inuendo, attempt to question their integrity? The standing of each of them is as much above suspicion as the editor of the *Record* could possibly wish his own to be. What evidence or proof has he to justify him in attacking honorable members of his own profession? As a gentleman and a member of a scientific brotherhood, it is incumbent on him either to retract his statements or to produce such evidence as will justify his malicious utterances.

4. That the House of Delegates at Boston was dissatisfied with the report of the Board of Trustees and that it was denied details regarding the business of the Association.

This statement every member of the House of Delegates knows to be false. The report of the Board of Trustees was adopted by unanimous vote. During the reading of the report, the complete payroll, showing every cent paid in salaries and wages to the 150 and more employes of the Association, from the Editor to the errand boy, was submitted to the House. Detailed statements, covering every item mentioned in the auditor's report, were submitted, or were ready for the information and inspection of the members of the House. We fear the *Record* was not very well served by its Boston representatives and we suggest that hereafter more reliable and accurate data be secured as the basis for

future attacks. Incidentally, we are constrained to ask by what right the *Medical Record,* or its owners, the commercial house of William Wood & Co., demand the publication of the pay-roll of the American Medical Association for the scrutiny and information of any and all commercial interests. Is such a list published by any fraternal organization, by any company or by any corporation anywhere?

5. That the surplus of the American Medical Association is nearly a quarter of a million dollars.

The editor of the *Record* has perpetrated the sophomoric error of confusing surplus with assets. The actual surplus, as shown by the auditor's report, published in *The Journal,* was $60,084.21. The assets of the American Medical Association, as set forth in the same report, were, on January 1, 1906, $247,482.91, but the editor of the *Record* failed to note, or was unable to grasp the fact, that this included real estate and buildings, furniture and machinery, stock and cash on hand, as well as bills and accounts receivable. We have the statement of the editor of the *Record* himself made some months ago, that "the editorial and the business departments of the *Record* are absolutely separate." If his conception regarding the surplus is to be taken as a sample of his financial ability, we can not but commend the foresight of William Wood & Co. in making such an arrangement.

6. That the Treasurer of the Association, to whom the editor of the *Record* sarcastically refers as a "prominent bank director and successful financier," is responsible for the investments of the surplus of the Association.

The most superficial acqaunitance with the Constitution and By-Laws of the American Medical Association would have shown the editor of the *Record* that the Treasurer is simply the custodian under heavy bonds, of the surplus funds of the Association, which he holds subject to the order of the Board of Trustees. The Trustees themselves, and not the Treasurer, are responsible for the investment of the surplus funds of the Association.

7. That the Association has become so big "that the number of papers presented in the various sections is too great to permit of their being assimilated by the hearers, or profitably discussed."

If our self-appointed critic had been in touch with the section work, he would have known that there have been for the last four or five years fewer papers than ever before; that sixty, seventy or eighty papers in a section was not an uncommon thing in years gone by; that now, by a general law, the number is limited to forty and that some of the sections have fixed a still lower limit, some as low as twenty-five. As the editor of the *Record*, so far as we know, never attended a session of the Association, he is excusable for this misdirected criticism.

8. That there is no need of the proposed medical directory; that the proceeds of the directory will increase the income of the Association to half a million dollars, that the sales of the book to non-members and the profits of the advertising will pay the cost of production and that the publication of the American Medical Directory is absolutely without excuse.

The consideration of the Directory demands a chapter by itself, which we propose soon to present to our readers. Suffice it to say at this point that the editor of the *Record* either has no conception of the objects of the Directory and what it will stand for, or else purposely ignores them. These matters have been fully discussed in *The Journal* time and again. In *The Journal,* Nov. 18, 1905, for instance, appeared a detailed statement of the plan and scope of the work, which evidently the editor of the *Medical Record* has never read. His profound suggestion that the Association give away twenty thousand—now it would be twenty-six thousand—copies of the Directory to its members is too puerile for comment. We once more pause to congratulate William Wood & Co. that their editor has no connection whatever with the business department of the *Record.*

9. That there is "loudly expressed dissatisfaction with the present management all over the country, which is assuming definite form in the organizing of new state medical societies and even serious talk of a rival national organization."

Will the editor of the *Record* kindly name any state in which a new state medical society is being organized? The Association office is presumed to know the actual conditions regarding medical organization throughout the country. But, evidently, this presumption is unfounded. The *Record* has discovered a condition that was not known to exist. Now, what are the facts? Never before was there less opposition to the plan of organization than now prevails in every state and territory, all but two being organized on a uniform basis. Until two years ago, there was opposition in several states; now there is practically none. In Georgia, immediately after the reorganization of the State Association, there was some disaffection on the part of a few physicians and some transient agitation for the organizing of another state society, but this amounted to nothing. In one county in Michigan, six dissatisfied physicians agitated the organization of a new state body, but nothing definite resulted. This movement was never looked on seriously by those connected with the state society. The disaffection in both instances was the result of purely local conditions in no way related to the American Medical Association and was merely a remnant of the disaffection that at one time prevailed in many states. Never has the profession been more united, never before has it been so influential, never have there been so few local jealousies, and never has there been a more hopeful outlook in every way than now.

10. That the Walker resolution, introduced at the Boston session, was defeated through the efforts of the officers of the Board of Trustees or their friends, and that an attempt was made to suppress an investigation of the business affairs of the Association.

Again, we are led to deplore the inaccuracy of the reports received by the *Record.* The facts are these:

The moment the reading of the resolution was concluded, it was at once tabled by the practically unanimous vote of the House. There was no discussion. The members of the House cared for none. There was no time for the officers to express themselves even had they desired to do so. The statement that the resolution was opposed by the officers, the trustees or their friends is an absolute falsehood, unless the entire membership of the House of Delegates is included under the designation "friends." The Association and its officers are fighting secrecy and deception and are not practicing it.

11. That at Boston "a strenuous effort was made to get rid of the Editor, and that so great has become the dissatisfaction with his administration that this endeavor might have been successful had the general body any voice in the management of the Association."

This statement is unqualifiedly false, as all who attended the Boston session well know. There was an opposition, it is true, and a bitter one, but it was limited to the horde of nostrum vendors who have been getting rich by humbugging and deceiving our profession, and to the owners or attaches of those medical journals nourished by the same brood, who allow themselves to be used as the mouthpieces and tools of proprietary interests. The Editor of *The Journal* of the American Medical Association knows full well that he is hated with a most intense hatred by these gentlemen and their allies, and that they would stop at nothing to secure his "dismissal," but he also knows, and knows thoroughly and well, that the "management" was fully and completely endorsed by 95 per cent. of the physicians at the Boston session, and, for that matter, is endorsed by a like proportion of the physicians of the country, who know the truth of what is going on.

So much for the "facts" regarding the American Medical Association as set forth by the editor of the *Record*. Just a word as to that gentleman himself. He graduated in the spring of 1877 and so has been a member of the medical profession for 29 years. During all this time, his interest in the American Medical Association and in medical organization was so great and his enthusiasm so uncontrollable that in March, 1906, just ten weeks before the Boston session, he became a member of the American Medical Association. Truly, not without reason has the zeal of the new convert become proverbial. Had he devoted a small part of the 29 years of his professional life to a more careful study of the organization of which he was, at last, to become a member, he might have been able to discuss the Association's affairs intelligently, if not truthfully. During all this time, men whose membership in the organization numbers years while his numbers weeks were earnestly and unselfishly striving, not only to build up the American Medical Association, but to bring about better conditions in our profession. During the same time, what has the editor of the *Medical Record* done in this respect? Yet he now arrogates to himself the right to criticise and, by implication and by baseless insinuations to brand these same men as "boodlers" and "grafters."

Is it probable that the business interests of an old and hitherto reputable publishing house will be enhanced by the use of its journal as a medium for such malicious, unfounded and unwarranted attacks? We think not. However, we commend this thought to the consideration of William Wood & Co. of New York.

THE 74TH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, HELD AT TORONTO, AUGUST 24TH, 1906.

(Reported for the JOURNAL by Dr. Langley Porter.)

It has been a great pleasure to see American and British physicians fraternizing at this, the 74th Annual Meeting of the British Medical Association, which has been, in effect, a gathering of medical men from the English-speaking world. Certainly there were as many visitors from the United States as from Great Britain, and in the sections many papers were read by Americans, and there were but few discussions that did not bring some authority from the United States to his feet.

The section that attracted by far the most attention was the medical, with its international symposium on heart block;—Barr, Gibson, Broadbent, Mackenzie, Erlanger, and Aschoff, each had a paper, and all were listened to with the utmost attention.

Aschoff, Professor of Anatomy at Marbourg, created a profound impression by his exhaustive detailed paper and impressive array of specimens, illustrating the monumental and revolutionizing work done by himself and Tawara on the anatomy of the conducting fibres of the heart. He demonstrated, apparently to the satisfaction of all the authorities present, that the conducting apparatus of the heart is inherent in an array of fibres partially described half a century ago by Purinje, which fibres consist of a tissue intermediate between the muscle and nerve, very rich in sarcoplasm. According to Aschoff the system begins at the roots of the great veins, spreads sub-endocardally over the auricle, is gathered together at the auriculo-ventricular septum, into what Aschoff calls "the knot", which cordesponds to the bundle of His, and from this again spreads out, dividing and re-dividing sub-endocardially over the ventricle, the final divisions merging with the true muscle plasm. The distinctive features of these fibres, according to Aschoff, are their richness in sarcoplasm, the length and narrowness of the individual cells, and the presence about them of a true sheath of connective tissue. It is the belief of the German anatomist that interference with any part of this conducting apparatus may cause arythmia of one or another type; perhaps complete heart block. He claims to have seen two cases of typical heart block, in which the His bundle was unimpaired, although he did not make it clear whether or not any part of his conducting system was injured in these cases. He showed slides and photographs from the case reported by Ophuls and

Schmoll of San Francisco, and quoted extensively from Schmoll's paper on heart block in the course of his talk. Aschoff also showed, as a unique specimen, the heart of a patient who had suffered from acute rheumatism, in which there was a nodule that had destroyed the continuity of the Purinje fibres, and he claimed such a specimen could occur in no other disease, his idea being that the endocarditis of rheumatism was not accompanied, as usually thought, by myocarditis, but that the danger to the mycardium was secondary to interference by these specific nodules with the conducting apparatus, such nodules he conceives as being practically the same as those so often seen sub-cutaneously in cases of acute rheumatism.

There was some skepticism manifest, and the just criticism was made that there was more interpretation than demonstration in this particular case.

Mackenzie, of Burnley, was received with great applause, and spent a large part of the time allotted to him in complimentng Aschoff on achieving a piece of work that could explain so many hitherto inexplicable points in the production of arythmia and heart block.

Mackenzie gave a short but very clear exegis on the progress of the Adams-Stokes syndrome, and showed tracings with clinical notes and explanations which made this complicated subject quite clear to his audience. He also demonstrated the newest developments of his famous polygraph,—an ink-writing machine that will trace the radial and venous pulse and give the tracings of any desired length. The apparatus is exceedingly simple, but, unfortunately, the instrumental defects are so great that the contour of the tracings has no value. However, it will give as perfect relative time results as possible, and it is obvious that we will be able to get many new facts from an apparatus that can produce for us time relations between auricle and ventricle through a period of from ten to fifteen minutes. Especially will it be useful in those cases of occasional arythmia that are so puzzling to us.

George Gibson, of Edinburg, followed Mackenzie, and showed that in heart block it is possible to record the independence of auricle and ventricle by use of the capillary electrometer, and also that such independence may be demonstrated by the Roetgen Rays on the fluorescent screen. Gibson had a series of beautiful microscopic sections of the His bundle, from normal hearts and from hearts of patients exhibiting heart block, and he was the one man of authority who seemed to think that Aschoff's interpretations of his findings were, perhaps, over enthusiastic.

Erlanger's paper was a re-statement of the facts published last year, embodying the physiological experiments that have now become classic and familiar throughout the United States. Erlanger had some friendly controversy with Mackenzie as to the source of the stimulus to the auricle, maintaining that it was probably entirely due to the entrance of the blood. I believe he has gone to Madison, with the determination to investigate this point more fully, and that very soon we may expect to have more exact knowledge than we have hitherto had about the initiation of stimuli.

While the section of medicine was the one that attracted, perhaps, the largest audience, the greatest individual impression was made by Sir Victor Horsley, who delivered the address in surgery. Naturally, Horsley was given a subject in the domain of the nervous system, and the title of his paper was "On the Technique of Operations in the Central Nervous System." He occupied some hour and a half, during every minute of which he demonstrated his mastery of the subject. The mover of a vote of thanks very justly stated that, Horsley had not quoted from literature, because he had made the literature on this subject, and that the paper just presented was a contribution that epitomized all his past efforts and presented many new facts.

The points of most interest that were brought out related to the prevention of shock in brain operations. Horsley attributed the causes of shock, first, to anesthetic, second, to the cooling of the patient's body, third, to the cooling of the brain tissue, and fourth, to pressure on the bulb, due to faulty manipulation and position, and he was exceedingly insistent on the matter of anesthetic, going into the subject in great detail.

He stated that years ago, because of the remarkable power morphine had of contracting cerebral vessels, he used a combined anesthetic of morphine and chloroform. Because of adverse effects on the alimentary canal and on the respiratory centre, he gave up the use of morphine and has since employed pure chloroform. He had not used the intraspinal injection of cocaine or stovaine in operations. Reflecting on the reports, especially from Morton, of San Francisco, he had decided to give that method in the future a thorough trial. Ethel he condemned as inadmissible, although he specially stated that he did not desire to be considered as criticizing his colleagues, especially American surgeons, who had accomplished most brilliant results under ether narcosis. His objections to ether were that it causes a rise of blood pressure with a notable increase in blood venosity, and, therefore, increased hemorrhage. These disadvantages he thought outweighed its lower physiological toxity on nerve tissue.

Chloroform, on the other hand, had been shown to cause a fall of blood pressure with the venosity of blood diminished, although not entirely absent. So, it does not aggravate bleeding, nor embarrass respiration, and is followed by no after-excitement and but moderate headache. To the mind of the lecturer it seemed probable that sickness after chloroform can be entirely done away with, as it probably depends on the dosage.

He referred at length to the report of the British quantitative determination of the amount of chloroform, which was given the task of making a precise quantitative determination of teh amount of chloroform necessary to produce anesthesia. The committee reported that less than two percent of chloroform vapour in the atmosphere, breathed by the patient, was enough to produce deep narcosis, and that a very much smaller dose is required to maintain

unconsciousness. Since that report Horsley has used entirely the Vernon-Harcourt inhaler, and he showed a photograph of his amphitheatre with the apparatus in use. It seems rather cumbersome, but if his claims are justified, which they undoubtedly are, this clumsiness is more than compensated for by the increased safetly.

The inhaler is arranged to give from one-half to two percent volume of chloroform. Many anesthetists have reported adversely on the instrument, Horsley believes, because it has ben improperly used. He lays great stress on the absolute necessity of making the face piece fit tightly by the use of antiseptic towels. He also gave us a diagram, which diagram illustrated graphically the pain undergone by the patient during the operation. Skin incision gave the highest point in the curve, which dropped rapidly during the operation on bone, with a slight raise of the pain curve, due to the fifth cranial nerve supply, when the dura was opened, then it very rapidly fell to almost nil during the exploration and treatment of the brain. There was another sharp raise when the skin was sutured, followed by a rapid fall when the dressings were placed. His point was that in giving the chloroform, the curve of chloroform vapor concentration should run parallel with the curve of the pain production, and in the practice of his anesthetists, Doctors Buxton and Powell, it is customary to begin with one-half percent vapor, which is rapidly run up to two percent. This is maintained for about five minutes, before the incision of the skin and reflection of the flap is accomplished. The dose is then lowered and the bone removed at about one percent concentration. Before the dura is opened concentration is increased to somewhere about one and one-half percent. Afterwards the encephalon can be dealt with without causing any pain unless some of the peripheral sensory cranial nerves be accidentally irritated. Consequently less than a half percent of the chloroform in the air is needed here. Often it can be entirely shut off. Horsley reports that he has been able to do this for twenty minutes in a child, never more than fifteen minutes in an adult. Before the return of the reflexes, of course, renewed concentration of chloroform is administered. After the brain lesion is dealt with the percentage is raised about one percent during the insertion of sutures. Finally this percentage is continued to the commencement of the dressing in order to prevent vomiting occurring before the protective dressing is applied.

In the matter of maintenance of body temperature, Horsley insists that the temperature of the room should not be less than 75° F., and that the operating table should be provided with suitable heating appliances, either of hot water or electrothermic.

In order to maintain the physiological energy of the nervous system and to prevent radiation from the brain, he uses continuous irrigation with a solution of sublimate of 1 in 10,000 strength, which solutions he puts into the irrigator at a temperature of 115°.

On the question of hemorrhage, which is very annoying during operation, he urged the advantage of using irrigations. He quotes Milne Murray, who from his experiments concluded that water from 70° to 105° F. will invariably dilate blood vessels and promote the flow from open ones, but that water of a temperature from 110° to 120° will have just the opposite effect. Therefore, his irrigation at 115° answers a double purpose, preventing hemorrhage as well as radiation. He says it is very essential that a large irrigator should be used, in order that the fluid should remain at 115° and not fall below 105°.

He very strongly objected to the tying of the carotid in order to control the blood supply, and thought it did great damage. All bleeding from the veins and sinuses in bones, he held, was trivial, because it could be immediately arrested by plugging with wax if the periosteum around the hole were completely removed; no difficulty should ever arise from hemorrhage from this cause. Bleeding from sinuses and other veins and from large vessels in general can be controlled by pressure with the point of an instrument, while the opening is closed by a fine suture.

He also alluded to the inhalation of oxygen as a manoeuvre by which venous oozing could be rapidly controlled, and one of the advantages of the Harcourt inhaler is that at any time during the proceeding, without any special preparation, oxygen may be passed into the inhaler.

His remarks on shock contained little except what is common knowledge.

As to the methods of operation Sir Victor Horsley thought that much of the shock depended on the manner in which the skull was opened. The principles that he laid down were, first, that the bone should be divided with as little vertically applied force as possible and removed with the least possible pressure on the brain and dura. He finds that these essentials may best be fulfilled by first removing a trephine disc, and marking with a large saw the area to be removed, and finally cutting away the bone with a large bone forceps, all traction being directed outwards. He was particularly scornful of those operators who use mallet and chisel.

He also laid down as an axiom that if a line be drawn from the frontal eminence to the occipital protuberance, shock results more often from operations below than above that line. He also stated that the risk of an operation for decompression is greater if the opening is not made directly over the lesion. He laid stress on the point that operation gave a greater risk when the diagnosis had not been made, or had been incorrectly made. In cases incorrectly diagnosed, 37% of patients had died from shock, and in those cases in which the diagnosis had been correct, only 7%.

He was very urgent in his recommendation of the injection of strychnine combined with oxygen inhalations in the treatment of the respiratory phases of shock. He thinks as a stimulant to the bulbospinal centres, strychnine is unrivalled, but it seemed to him inadvisable to give the drug before some alteration in the rhythm of the respiratory centres showed itself, and very unscientific to give it either immediately previous or at the end of an operation,

with the idea of anticipating shock. He also called attention to the fact that we are often led into fear of shock by the normal depression of the cardiac and respiratory functions that precedes chloroform vomiting. He admits, as far as circulation is concerned, the benefit of bandaging the limbs over cotton-wool, and of repeated nutritive enemata. In very acute conditions a small dose of atropine is useful, and in cases of peripheral vasomotor paralysis a small dose of digitalis. Alcohol he considers as useless—in fact, harmful; strong coffee, useful; but cardiac stimulation generally a clinical error under the circumstances.

The lecturer spent some little time in discussing the displacement of the brain in the operation. He was thoroughly convinced that Frazier's recommendation to remove the lateral hemispheres of the cerebellum is not only useless but definitely damaging. He thinks that the manner of displacing the brain to reach the tumor is a matter of great importance. He advises pressure directly upwards on the vault, but this compression must be gradual and cautious and produced by the insertion of a flat spatula beneath the hemispheres. Under these circumstances the soft nerve tissues mould themselves readily, but too much and too rapid pressure will produce laceration of brain tissue and oozing between the fibres of the corona. Such compressions at the base are relatively unimportant. With this procedure properly applied to the temporal lobe, one can see and readily examine, with good illumination, the crura cerebri, the circle of Willis, the pituitary body and internal carotid, even the second and third nerves come into view, and he has, after the removal of a pituitary tumor, been able, by the use of a small rhinoscopic mirror to further examine the base of the brain. With a copper spatula of suitable size, gentle pressure and a strong headlight, the lateral region of the cerebellum and medulla oblongata with the issuing nerves, may be brought into view, and as he has demonstrated these facts, the lecturer is especially chary of following the procedure of removal advised by Frazier.

Reference was made to the superstition that interference with the ventricular cavity is necessarily fatal.

One important conclusion of the lecturer was that in no case in which there had been signs of intracranial pressure, especially if there was increasing optic atrophy, had the medical man a right to temporize. Six to eight weeks of medical treatment, which practically means treatment with iodides only, was the limit to be allowed. Incision into the dura, no matter if the tumor was inoperable, would in most instances mean the retention of sight by the patient for the period of remaining life, and in many more cases than medical men in general believe, the tumor would be removable and the condition amenable to surgical interference.

Dr. Adami's paper on the relation of fluid crystals to arterio-sclerosis and other pathological conditions is one that will probably create a great deal of attention when published.

So much was programmed that the attempt to follow the work was something like following the performance in a three ringed circus. For instance, while heart block was being discussed in the section of medicine, a very interesting discussion, in which Professor Clifford Allbutt was the most notable speaker, was being carried on by the section of pathology, which was largely given over to a discussion of Professor Hewlett's and Dr. De Korte's papers on a beri-beri-like disease in monkeys, and gave a very full pathological discussion of the subject. Dr. Hamilton Wright was also present, and gave his well-known views.

The joint discussion by the sections of medicine and pathology on nutrition brought a statement from Dr. Chittenden of his experimental work on the nitrogen minimum. Professor Haliburton was inclined to doubt the utility of the work of Chittenden, laying great stress on the fact that nitrogen minimum was not necessarily the nitrogen optimum, and he further laid stress on the fact that while Chittenden's experiments had been extensive, that more extensive experiments were being performed daily on the poor in great cities of the world and on vegetarian nations who lived on a nitrogen standard, such as Dr. Chittenden suggested for us, and they were inevitably people below the standard in physical power. Robert Hutchinson gave an exceedingly interesting philosophical discussion of the whole subject, also insisting that the introgen optimum was not necessarily the nitrogen minimum. He asked us to consider that man could and did get along with the use of one lung, but that any one would probably claim that one lung was not physically optimum. His suggestion was it would be exceedingly interesting to follow carefully in the future the incidents of disease and their resistance by the people, who accepted Chittenden's standard. He criticised Dr. Chittenden's method of demonstrating blood resistance, Chittenden having laid stress on the hemaglobin contained; whereas to the mind of Hutchinson the only method we had which gave us any idea of the resisting power of the body fluids to disease was the determination of the opsonic index.

As a matter of fact, in all the learned discussions practically nothing new was brought up, and Chittenden's position remains unshaken. Hutchinson made one good point, that we should be much more intent on determining, not the nitrogen or the carbohydrate, or the fat minimum or maximum or optimum, but the food optimum; that undoubtedly the proteid values of both fats and carbo-hydrate were insufficiently recognized and insufficiently used in the formation of normal and sick dieteries.

The writer was, naturally, most interested in the section of pediatrics. Unfortunately the interest caused by the presence of Aschoff, Erlanger and Mackenzie in the medical section prevented the attendance at all the meetings of this section. There were, however, very excellent papers by Morse, of Boston, and La Fetra, of New York, on the treatment of summer diarrheas of children, which in the minds of the speakers, seemed to be largely matters of diet. Shaw, of Montreal, gave a very exhaustive and interesting account of the fat digestion and absorption in children, bring out no particularly new

facts, but reviewing old facts in a way that will certainly be of value to those of us who have to feed children whose stomachs seem unable to digest normal percentages and usual mixtures of fat. The most interesting discussion in this section followed the papers of Cautley and Stiles, who discussed the condition of congenital pyloric stenosis. Specimens were exhibited which could leave no doubt in the mind of any one that the condition is truly congenital, and not, as some claim, post natal and due to attempts of a dilated stomach to empty itself. Ashby showed us a specimen from a child thirty-five days old, in which the pylorus was hypertrophied to at least half an inch in radius. The stomach itself was dilated and would hold probably about eight ounces. Other specimens were shown illustrating the same point.

Cautley dwelt upon the medical treatment and on diagnosis. His conclusion was that if one waited for the production of a dilated stomach which should show peristaltic waves and a tumour sufficiently large to be easily palpated, the general condition of the child would be such that operation would give it no aid. Stress was laid upon the scantiness of the stools, although this was by no means a necessary clinical point, for the case which Ashby showed allowed enough food to enter the intestine to provide a fairly bulky stool, but still that point, together with continuous vomiting must be one that leads up to operative interference. Such conditions are exceedingly rare. In twelve years he had seen fourteen cases, and he undoubtedly has an opportunity few men have to see cases of such a type. The great difficulties in diagnosis may be well imagined. For diagnosis Cautley divided the cases into three classes: (1) True productive congential hypertrophy; (2) Slight congential hypertrophy with post natal spasm and dilatation; (3) Pseudo hypertrophy due to spasm. Hutchinson created somewhat of a sensation by stating that in the last two years he had seen ten such cases, of which none had died, and he had initiated surgical interference in none of them, which results were quite opposed to general experience. Cautley went so far as to state that if Hutchinson had seen ten cases in two years, and they had recovered without operation, none of them were true congenital stenosis of the pylorus, that they were merely cases of spasm secondary to acute indigestion, Cautley's third class. In the discussion one fact was not brought out that seems to me of great importance, that is, the readiness with which certain fats, high in caprillic and caproic acids, can produce and do produce, spasm and a condition of pseudo stenosis, with dilation and vomiting, which is very difficult to diagnose, but which responds readily to the use of alkalies, lavage and minute doses of opium.

Stile's paper treated entirely of the surgical aspect, and his results were certainly not such as would encourage us to proceed to operation unless our case was one in which there was absolutely no question of true congenital hypertrophy, and in which the diagnosis was made fairly early. Forty-eight per cent of his operative patients died, and he probably has the average experience. He divided the procedure into divulsion and gastroenterostomy and pyloroplasty. He advised the latter operation, the v-y operation, as he called it, appealed more to surgeons than it does to me. He advised against the use of the gastroenterostomy ,and divulsion had produced no good results in his hands. He strongly opposed the dilating of the pylorus as being thoroughly unscientific and dangerous, stating that unless the pylorus was ruptured no good could come from it and it was much better to cut than to rupture, avoiding all danger of infection in the peritoneum.

The section of therapeutics, under the Presidency of Donald MacAlister, Cambridge, was in joint session with the section of medicine for one day. Most of the programme was given up to the value of alcohol in treatment, the opinions being diametrically opposed, but the final conclusion seemed to be that while alcohol was of use, especially in those case in which the prinicpal vessels were contracted, it was of little value in any other way, but great stress was laid upon the difference between alcohol pure, dilute, and alcohol in combination with the higher ethers, as in the better class of wines, most of the speakers laying stress on the fact that wines, such as sherry, and champagne, were of great value, when diluted alcohol was practically useless.

The meeting closed on Friday, and on Saturday the members were dispersed throughout the country, for a series of excursions and fetes.

SPASMODIC TORTICOLLIS.*

By P. C. H. PAHL, B. S., M. D., Los Angeles.

Synonyms—Caput obstipum spasmodicum; torticollis fonctionnel; tic rotatoire; torticollis mental; spasmodic wry-neck; torticollis spasmodicus; tic giratoire.

Introduction. About three years ago, I was called in consultation upon a case of spasmodic torticollis. It was the first case that ever came under my observation, and my having examined, up to that time, not less than two thousand orthopedic cases of all kinds, goes to show that the condition is a comparatively rare one.

I began looking up the subject in the literature at my disposal, and I was very much disappointed at the meagre information to be obtained.

I went ahead with my case, however, and did the best I could, determining that I would look up this matter exhaustively and bring all the facts obtainable together into one paper, which I would present to the Western profession, hoping that it might serve as a help in recognizing the condition and in choosing the method of treatment most applicable.

This article contains the report of cases and other information of value to be found in the papers of fifteen American, ten English, nine French, five German and two Italian authors. The different methods of treatment and the results of these are given in full, as well as three of my own cases and

*To have been read at the Thirty-sixth annual meeting of the State Society, San Francisco, April, 1906.

the operation which I have successfully performed.

These reports were abstracted for me from the *Index Medicus*, by Dr. Albert Allemann, of the United States Army Medical Museum, Washington, D. C.

Definition. Spasmodic torticollis is a spasmodic movement of the various muscles of the neck, chiefly the rotators. The principal element is a clonic spasm; all else is excluded. The spasm is aggravated when any voluntary muscular effort is attempted, but disappears during sleep, while lying down with the head resting firmly on a pillow, while sitting with the head firmly supported against the back of a chair, and, usually, while standing with the head supported against some firm object, such as a wall or post. Walking, to any extent, is impossible without supporting some point about the face or head, with the hand or some object held by it.

Figure 1.

Clinical Picture. The head is drawn sideways, obliquely, downward at once or in single jerks and rotated to such a degree that the ear approaches the shoulder and the chin is directed upward in the opposite direction; the sterno-cleido mastoid muscle, of the side toward which the head is drawn, is bulging out and often hypertrophied. In those cases, where the head is drawn backward and the shoulder upward, the trapezius can be felt in a state of rigid contraction—there may be pain in the body or the origin or insertion of the muscles affected.*1. Walking being impossible without support at some point about the face or head, it is interesting to note the different means which have been resorted to in order to disguise, to the public, this affliction; the placing of a lead pencil, an umbrella handle or cane against the point of the chin are methods frequently employed. One patient completely deceived me as to the real nature of his malady by wearing a pair of dark glasses—this naturally led me to think that he had some eye affliction. In walking, or while making any voluntary muscular effort, he would grasp one of the lenses with the apparent intention of adjusting the glasses, and this would give him sufficient support to get along after a fashion.

History. The ancient physicians, Hypocrates and Galen, do not mention this malady. Charles Bell, in 1830, mentions several cases; in 1837, Arnheim describes a case clearly and says that he had never read about such a disease. In 1838, Strohmeyer treated this condition surgically by dividing the sterno-cleido mastoid muscle. *1.

Bujalski first divided the spinal accessory nerve in 1835; myotomy was performed by Guerin in 1840. Both of these men were forgotten, and, in 1862, Campbel de Morgan, knowing nothing of Bujalski, proposed the division of the spinal accessory nerve and this operation is usually attributed to him. Since that time, the division and re-section of the spinal accessory nerve has been done by a large number of surgeons in England and America.* [27] The French also frequently operate for it, but quite a number attempt to treat this condition by suggestion and re-education, which they term the pedagogic treatment.

Etiology. Spasmodic wry-neck depends upon abnormal nerve action; the causes are, as a rule, obscure. A neurotic family history, grief, anger, mental overwork, astigmatism, muscular insufficiency, trauma, infectious disease, and degeneracy are frequently mentioned in the case reports. C. K. Mills says that the condition is very frequently due to differently situated irritating lesions.

1. A lesion in the spinal cord, anywhere above the fifth or sixth cervical segment.
2. An intra-spinal but extra-medullary lesion of membranes, bones or nerves in the upper portion of the vertebral canal.
3. A lesion of the medulla oblongata or floor of the fourth ventrical.
4. A lesion of the main trunk of the spinal accessory nerve as it passes downward in the sterno-cleido mastoid and trapezius muscles.
5. A lesion of any of the nerves which anastomose with the spinal accessory and are closely connected with it in the spinal cord.
6. A lesion of the cortical centers which preside over lateral deviation of the head.* [7]

Pathology. The pathology of spasmodic torticollis is still under controversy. It is at once obvious that the chief consideration is the spasm, but the movements of the head are complicated, and when the head is jerked into the true torticollis position, it involves a large number of muscles whose enervation is varied and complex. We are compelled to give some consideration to the view of Brissaud; it cannot be denied that a strong psychic element exists.

Many authors believe that it is a disorder of the cortical centers for rotation of the head; others that long continued habit, brought about by occupation or eye strain, may finally merge into spasm.

Statistics. In sixty-eight cases that I collected from the literature, I found that men and women were equally affected; it occurred most frequently between the ages of 20 and 30, and that the right side was affected twice as often as the left. Out of sixty-eight cases, twenty-five were females, twenty-four were males; and, in nineteen cases, the sex was not given. Between the ages of 10 and 20, there were three cases; between 20 and 30, nineteen cases; between 30 and 40, eight cases; between 40 and 50, thirteen cases; and between 50 and 60, five cases. By various treatments employed, twenty-eight recovered, seventeen were improved and eleven unimproved. In twelve cases, the treatment was not given.

The methods of treatment employed and their results were classified under the following headings:

Treatment. I divided the different treatments described in the sixty-eight cases into nine groups.

	Number of Cases	Improved	Unimproved	Recovered
Group 1. Hydrotherapy, Massage, Gymnastics, Electricity	1		1	
Group 2. Pedagogical	9	6	1	2
Group 3. Drugs and Medicines Administered internally and externally and counter irritants	6	1	4	1
Group 4. Mechanical	3		1	2
Group 5. Ligation of Spinal Accessory Nerve with silver wire	2		1	1
Group 6. Division of Cervical Muscles	14	4	3	7
Group 7. Stretching of Spinal Accessory Nerve	1			1
Group 8. Division of Spinal Acces- Nerve	13	5		8
Group 9. Division of Spinal Accessory Nerve and Posterior branches of the Upper three Cervical Roots	7	1		6

Group 1.—Hydrotherapy, Massage, Gymnastics and Electricity. There was one case treated by this method only; result, unimproved. With the exception of recent cases, I am convinced that these methods are of little value; there is nothing peculiar about their administration in these cases and, therefore, further details are deemed unnecessary.

Group 2.—Pedagogical. Under this group, there are nine cases; results, six improved, one unimproved, two recovered.

According to Brissaud, what we call psychotherapy is nothing else than certain words destined to show the patient where his will sins, and to exercise that which he still possesses, in a favorable sense. In these special cases, the trouble is confined to a fault of the inhibiting will capable of refraining a cortical caprice.

These words have nothing metaphorical and the method has nothing mysterious; it requires no especial power outside of mild firmness and encouragement, the first virtues of an educator. The physician, indeed, becomes an educator without borrowing anything from the more or less occult hypnotic suggestion. The patient must be immediately told that this co-operation is indispensable; he must voluntarily cause to act at the right moment the antagonistic muscles against those under spasm. It is, therefore, his own will that acts, not the personal will of the educator. I do not say that success will always follow; generally speaking, these spasms are the more difficult to cure the longer they have lasted and the older the patient.* [37]

E. Feindel, an associate of Dr. Brissaud, describes the treatment of a case in 1897, in the following manner:

The first step consisted in showing the patient that not only her hand had the power to arrest the movement, but that any other support would do the same. The patient is seated before an apparatus, which is called a campimeter; this consists of an instrument mounted upon a stand with a chin piece and a circular face divided into various degrees. A hand, which can be operated at will by the operator, is followed by the eyes of the patient; the patient is advised to take similar exercises at home in the afternoon. The seances take place every day at the same hour in the forenoon, last a few minutes and are discontinued as soon as there are signs of fatigue.

The treatment consists of very simple exercises; that is, exercises of immobility and exercises of movement. The exercises of immobility of the head are graduated thus: In the beginning, the patient is sitting with the head supported on an object other than the hand; later, the patient, still sitting, is leaning against a support only; later, he stands up and still later, he walks. In these various positions he strives to hold the head straight as long as possible, but, at the slightest sign of fatigue, the effort of his will must cease; it is well for the patient to fix his eyes upon some object, and here the campimeter is used. The exercises of movement are also little complicated at the beginning; the head is turned to the right and to the left; it is inclined on one shoulder, then on the other, and this in various attitudes of the body, the shoulders being drawn up, the arms raised or crossed. We modify the treatment in many ways or augment the difficulties with the improvements, but the simple movements of the beginning are repeated at each seance and each badly executed movement is repeated in the succeeding seance until it is perfect. The movements must be made slowly, softly and without jerks, and stop at the least sign of fatigue; the duration of the seance is variable. At the beginning, from two to four or six minutes, according as the patient gets fatigued more or less rapidly. In the same seance, the exercises of immobility are mixed with exercises of movement; there are from four to six seances every day and always at the same hours. At least one of these must be directed by the physician personally. A seance of gym-

nastics may be followed by from two to five minutes of electrization with a feeble current and from two to five minutes of massage.

The patient must not be left to himself until a marked improvement has taken place; by that time, he will understand that this simple method of treatment is the only true one. The patient should continue the exercises for several months after cured.

Group 3.—Drugs administered internally and externally, and counter irritants. Under this group we place six cases, with the following results: One improved, four unimproved and one recovered.

Noble Smith says that neither drugs, local applications nor other general methods are of any permanent use in the treatment of well-established spasmodic wry-neck.* [18]

T. H. Meyers states that because of the lack of exact knowledge of this condition, emperical measures are justified and, therefore, I wish to call attention to conium and atropin; I gave conium in steadily increasing doses. Beginning September 10, 1892, with five drops three times a day, each day the amount was increased two drops; when vision was affected, decreased dose and again increased. On November 5th, she took eighty drops; on the 23rd, one hundred and forty drops; legs were very weak, intensity of muscular spasm diminished a little. Aqueous solution of sulphate of atropin was injected into the painful points of the muscle once a day. On November 25th, four drops of a solution one grain to the ounce, was injected; on the 28th, six drops; the spasm diminished immediately after the injection. There was some nausea and vomiting; the patient became despondent; the spasm disappeared, for several hours only, after the injection; patient refused to continue treatment.

In another case, I gave conium in conjunction with a spinal assistance brace; improvement followed after a month's treatment. After a year's treatment, the patient took one hundred and eighty drops of conium daily and was greatly improved, but the spasms did not entirely disappear.* [17]

F. de Quervain mentions that every kind of antispasmodic has been tried; zinc bromides, valeriana, belladonna, hemlock, morphine and chloral with very indifferent results.* [27]

C. S. Potts believes that, before resorting to surgical interference, medical means should first be exhausted. We ought to try absolute rest in bed with the head low, massage, passive movements, actual cautery as a counter-irritant, electricity, full doses of either gelsemium, conium, hyocine, bromides, iodides or atropin. The latter is better administered hypodermatically into the affected muscles.* [28]

I have personally tried salicylate of soda, apomorphia, lobelia and other drugs previously mentioned, without any lasting benefit.

Group 4.—Mechanical. There were three cases treated by this method. Result: One improved, two recovered.

H. J. Hall invented a clamp, which is very simple in its construction. It is made of light spring steel broader than, but in many ways similar to, the ordinary trousers guard worn by bicyclists. It has a tail piece running from the middle of the spring about six inches down the back. When the clothing is buttoned tightly over it, this tail piece helps to keep the spring closely applied. A gentle pressure is thus exerted on the side and back of the neck, as far forward as the anterior border of the sterno-cleido mastoid muscles. The best results are obtained when the spring is worn at about the level of the angle of the jaw. In several cases in which it was used, the apparatus instantly stopped most of the twitching, although the symptoms would at once recur upon removal of the pressure. This apparatus, when carefully made, can be worn with very little discomfort and is less noticeable than any other apparatus proposed.* [12]

G. R. Elliott describes an apparatus, which is worth consideration in this paper. The apparatus usually applied in these cases is of the rigid type; patient gets tired and discards it. My apparatus affords necessary support without absolutely restricting any normal movement of the head. The apparatus made by Tiemann has a hard rubber chin piece and two uprights holding the back and sides of the head—the chin piece can easily be removed—these are secured to an upright over which is placed a coil spring in such a way that the force of the spring can be directed to a greater or less degree against the spasm. If the spasm is very violent, the spring naturally gives and allows the head to take the extreme torticollis position; when the violent spasm has passed, it again forces the head into the normal position. The spring can be adjusted so that it cannot force the head beyond the median line, and thus does not exert any force when the head is held in normal position.* [32]

I have personally used a brace with a spring clamp similar to the one described by Dr. Hall, but the clamps were adjusted so that their padded ends would go over the angles of the jaw. A perpendicular support, extending from a cross piece with straps to be adjusted about the chest, running up the back of the neck to the head high enough to adjust a curved cross piece with straps to pass around the forehead, the spring clamp being attached to it four inches lower down. The most successful rigid support that I have been able to construct was made out of plaster of Paris. I applied a body cast from the hips, including the chest and head, which, after the plaster was well set, I trimmed out very extensively, giving large amount of room for the arms, trimmed out over the abdominal region as much as was possible without weakening the support; also the head was trimmed in such a manner as to

leave only a head band and a strong posterior support. (See Fig. 2.)

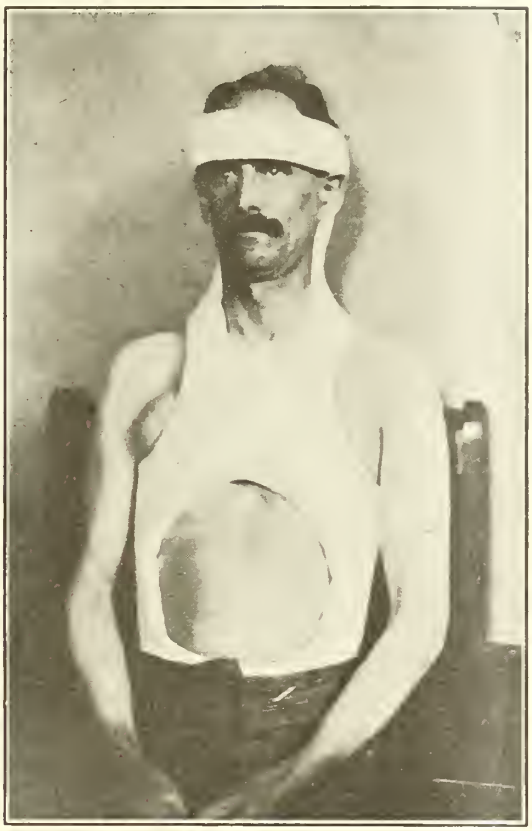

Figure 2.

My cases were rather aggravated than benefitted by the use of these supports, although while they had them on, the patients were able to walk without the assistance of the hands.

Group 5.—Ligation of Spinal Accessory Nerve With Silver Wire. Under this group, I found two cases. Result: One unimproved, one recovered.

This operation was first done by Mayo Collier in 1890.*18 The procedure consists of exposing the spinal accessory nerve, and placing about it a loop of silver wire, which is twisted tightly.

Group 6.—Division of Cervical Muscles. Under this group, we have fourteen cases. Result: Four improved, three unimproved, seven cured.

Kocher is the chief exponent of this method. The operation for dividing the sterno-cleido mastoid muscle is performed in the following manner: An incision five or six centimeters in length is made, beginning at the anterior margin of the sterno-cleido mastoid muscle, opposite the angle of the jaw and directed slightly upward so as to pass at a distance of from three to four centimeters below the mastoid process and following the natural folds of the skin. This incision gives an invisible scar; the platisma myoides is divided. A grooved director is introduced beneath the sterno-cleido mastoid muscle, which is divided layer by layer. In severe cases, instead of simple division, from two to three centimeters of the muscle are resected.

The Division of Posterior Cervical Muscles. An incision from the apex of the mastoid process to the middle of the cervical region is made; the trapezius is first divided; then the splenius capitis; then the complexus, major and minor (the great occipital nerve must not be injured); the obliquus capitis is then divided and the wound closed. The recti muscles have little rotating power and can be left intact.*27

Group 7.—Stretching of Spinal Accessory Nerve. Under this group, one case reported. Result: Recovered.

This operation consists in exposing the spinal accessory nerve and dissecting it free, sufficiently so that one or two fingers may be placed beneath it. The nerve is then stretched—first the distal end and then the proximal, care being taken not to rupture the nerve. This operation is practically obsolete. While it may afford temporary relief, the condition almost invariably returns.

Group 8.—Division of Spinal Accessory Nerve. Thirteen cases mentioned. Results: Five improved, eight recovered.

Operation: The spinal accessory nerve passes downward and backward from the jugular foramen and enters the anterior border of the sterno-cleido mastoid muscle at a point about one and a half inches below the tip of the mastoid process. At this point it should be exposed. Dr. E. Eliot, Jr., from a special study of the course and relations of the nerve, suggests the following method:

"As the nerve is situated at a considerable depth, the incision should be generous, and should extend from the mastoid process above downward to one or two inches beyond the angle of the jaw. The anterior edge of the sterno-cleido mastoid should then be exposed. In the upper part of the wound the posterior and inferior portion of the parotid gland may have to be drawn forward, although usually it does not overlap the muscle. When this is done it is comparatively easy to expose, by blunt dissection, the transverse process of the atlas, as it lies directly below the mastoid process above; while immediately in front of this bony prominence, and running downward and forward from the mastoid process toward the angle of the jaw, is the posterior belly of the digastric. Behind this lie the main vessels of the neck, with the spinal accessory nerve emerging from the jugular foramen, and the operator is certain no harm can be done to these structures as long as he remains superficial to the digastric belly, which, in its turn, lies at a considerable depth—in fact, at about the level of the transverse process of the atlas.

"Owen and Petit have drawn attention to the fact that the nerve usually enters the mastoid muscle at a point opposite the angle of the jaw. I have found, however, in a large majority of cases, that, on leaving the internal jugular it assumes a definite relationship with the transverse process of the atlas. Never above it, sometimes directly over it, usually a fraction of an inch in front of its most

prominent part, the nerve may easily be detected in the small amount of connective tissue that envelops it, and from this point to its entrance into the belly of the muscle, it may be isolated with safety and treated by any suitable procedure. If, exceptionally, it should escape detection, the anterior border of the muscle should be drawn sharply backward at a point opposite the angle of the jaw, the nerve in this way put on the stretch, and by blunt dissection in the adipose tissues that separates the under surface of the muscle from the sheath of the vessels, the nerve may be readily exposed. Usually the nerve passes from under the posterior belly of the digastric, at a point just in front of the transverse process of the atlas, to a point on the deep surface of the muscle just behind its anterior margin opposite the angle of the inferior maxilla. It is sometimes accompanied by a small artery and vein, the latter easily visible, the former a branch of the occipital. Rarely, the nerve lies at a considerable distance from the transverse process of the atlas; in one case, as much as half an inch anteriorly. Here the nerve could be found at its entrance into the muscle, the landmark of the transverse process having failed to localize its situation."

Richardson suggests that if the nerve is not readily found, its position may be ascertained by drawing the finger-nail firmly across the bottom of the wound, a sharp contraction following pressure upon it. The nerve having been isolated, a section of an inch should be removed. Richardson advises, in addition, vigorous stretching of both extremities. After division of the nerve, the spasmodic contraction relaxes and the muscles become flaccid, allowing the head to be brought to the normal position, or if the deformity has become permanent the contracted parts may be divided as in the ordinary form. Fixation of the head is not, as a rule, required. The operation should be supplemented by massage and by muscle-training.*41.

Group 9.—Division of Spinal Accessory Nerve and Posterior Branches of the Upper Three Cervical Roots. Seven cases given. Results: One improved and six recovered.

Anatomy. The chief posterior cervical muscles that rotate the head are the splenius capitis, the rectus capitis, posticus major and the obliquus capitis inferior. The splenius capitis is supplied by the external branches of the posterior divisions of the second and third cervical nerves; the rectus capitis is supplied by the sub-occipital from the first cervical; and the obliquus capitis inferior, by the sub-occipital and a branch from the second cervical.

An important anatomical point in recognizing the muscles and nerves is the sub-occipital triangle; the two oblique muscles for the superior and inferior border of the triangle running from the tip of the transverse process of the atlas to the spinous process of the axis, and to the occipital bone, respectively. The rectus capitis posticus major, which forms the third or inner border of the triangle, arises from the spine of the axis and is inserted into the inferior curved line of the occipital bone. The sub-occipital nerve emerges from this triangle, and in it the vertebral artery.

The nerves to be re-sected are the posterior divisions of the first three cervical roots. The posterior of the first cervical (sub-occipital nerve) supplies the rectus capitis, posticus major and the two oblique muscles; after escaping from the spinal canal between the occipital bone and the posterior arch of the atlas, it enters the sub-occipital triangle.

The posterior division of the second cervical nerve, just before its bifurcation, gives off a small filament to the inferior oblique. It then bifurcates into two branches, the internal and the external. The small external branch supplies the splenius capitis.

The large internal branch, the great occipital nerve, pierces the complexius about one-half inch below the middle line of the back and then enters the trapezius muscle. This nerve will be involved by the section of the posterior division of the second cervical before bifurcation but, in as much as this is mostly a cutaneous nerve and supplies only the complexius muscle, the paralysis of which would be a matter of no importance, the whole posterior division of the second cervical root may be divided close to its emergence from the spine, and prior to its bifurcation into its external and internal branches. An additional reason is that, from its size, the great occipital nerve is readily found and serves as a guide, whereas the two branches of the second cervical, to the inferior oblique and the splenius capitis, are difficult to find.

The posterior division of the third cervical is much smaller than the others, but is easily found, under the complexus, about an inch below the great occipital nerve just after its emergence from the spine; it divides into the internal branch, which is cutaneous, and the external, which supplies the splenius capitis and other muscles. It is best to divide the main trunk, as it is more easily found than its branches.

Operation. Patient shaved.

1. Make a transverse incision about one-half inch below the level of the lobule of the ear, from the middle of the neck posteriorly, or even slightly overlapping the middle. This incision should be two and one-half or three inches long.

2. Divide the trapezius transversely.

3. Dissect the trapezius and find occipital major nerve as it emerges from the complexus and enters the trapezius.

4. Divide the complexus transversely at the level of the nerve. This division should be made by repeated small cuts, so as not to cut the nerve which is our guide. Then dissect the nerve down from the anterior surface of the complexus; cut, or better, ex-sect a portion of the posterior division before the occipital major arises from it, so as to catch the filament to the inferior oblique muscle. This divides the second cervical nerve.

5. Recognize the inferior oblique muscle by following the sub-occipital nerve towards the spine; the nerve passes immediately below the border of the muscle.

6. Recognize the sub-occipital triangle formed by the two oblique muscles and the rectus capitis posticus major. In this triangle lies the sub-occipi-

tal close to the occiput. It should be traced down to the spine and be divided, or better, ex-sected. This divides the first cervical nerve.

7. An inch lower down than the occipital and under the complexus is the external branch of the posterior division of the third cervical nerve to the splenius capitis. When found, divide or ex-sect close to the bifurcation of the main trunk. This divides the third cervical nerve. Insert a drainage tube and horse hairs; patient lies on back.

Author's operation for the relief of spasmodic torticollis. An incision is made along the anterior border of the sterno-cleido mastoid muscle from the mastoid process to the sternum, joined by a transverse incision three inches in length, following the course of the clavicle. The sterno-cleido mastoid muscle is cut free from its sternal and clavicular attachments.

The cervical fascia is divided and the sterno-cleido mastoid muscle, skin, fascia, etc., are dissected free and retracted backwards, well behind the deep vessels of the neck. By carefully separating the sterno-cleido mastoid muscle from the underlying tissue at its upper extremity, it is quite easy to recognize the spinal accessory nerve as it passes into the sterno-cleido mastoid muscle. Do not look too deep; it is quite superficial when such an extensive incision has been made. It can be found about an inch and a half below the mastoid process. After it has been found, it should be freed to such an extent that at least one or two fingers can be placed beneath it; it should then be thoroughly stretched and its several branches should be cut as close to the muscle as possible. Grasp the proximal end with a strong artery forcep and proceed to wind it on the forceps so as to avulse it from its origin.

By careful blunt disection, posterior to the deep vessels, the transverse processes of the upper cervical vertebrae are soon exposed. The vessels, lymphatics and fatty tissue are retracted forward and the second, third and fourth cervical roots can readily be brought into view. Of these, the second and third roots are divided as close to their origin, and as much of the nerve is destroyed by avulsion and exsection, as is possible. The first cervical root cannot be reached. The phrenic nerve must be located and care taken not to injure it.

The sterno-cleido mastoid muscle is again sutured to its severed sternal and clavicular attachments; the superficial cervical fascia is re-united by fine interrupted sutures, a carefully placed subcuticular silk worm gut, in three pieces, closes the wound most satisfactorily and, when carefully done, leaves a very slight scar. A plaster-of-Paris dressing with the head in the normal position is applied, extending around the upper part of the chest, neck and head. It is trimmed out thoroughly to furnish abundance of arm room, also trimmed about the head and face until only a band about the forehead and a strong support in the back of the neck remains. This can be removed at the end of a week or ten days, the sub-cuticular stitches removed, and the patient allowed to leave the hospital with instructions to avoid excitement, to eat plenty of nourishing food and remain out of doors as much as possible. This is done for the reason that a great deal of blood is lost during the operation and the patients are, as a rule, in a run-down condition. There will probably be some twitching remain, which, however, disappears in from one to three months.

Conclusion. Judging from results obtained from the different methods of treatment, there is no question in my mind but that the most satisfactory treatment is surgical.

The simple division of the spinal accessory nerve gives some good results, yet, in many cases, the cure is not complete and a second operation is frequently refused, leaving the patient in a condition little better than he was before the operation. I, therefore, am of the belief that the greatest amount of satisfaction to both the patient and the surgeon will be derived from making the extensive operation which I recommend whereby the spinal accessory nerve and the second and third cervical roots are resected.

It is true that there are cases which are cured by the simple division of the spinal accessory nerve, and the division of nerve roots would be superfluous, but the amount of atrophy and loss of motion following the resection of these two roots is so small, that the damage done by cutting them unnecessarily, really amounts to nothing.

(*To be continued.*)

SPIRAL ORGANISMS IN RELATION TO SYPHILIS.*

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So much interest has been manifested in Schaudinn's announcement of the discovery of the organism causing syphilis, and so positive is the evidence accumulating in its favor, that I am led to ask you to consider with me its value as a means of making an early differential diagnosis of syphilis, and in so doing will direct your attention to other spiral organisms present in disease.

With the beginning of last year—1905—the spirochete entered the field as an important factor in the etiology of disease with the discovery by Ross and Milne of the presence of such organisms in the blood of patients suffering from "tick fever" in the Congo Free State. Dutton and Todd later established that they were transmitted by a tick (Ornithodorus moubata) which had become infected by biting patients suffering from "tick fever," and Koch confirmed these observations.

For the spirochete of relapsing fever—spirochete Obermeieri—similar relations seem to obtain, for it was long since announced by Karlinski that this spirochete could remain alive in the bedbug (cimex or acanthia lectularis) as long as thirty days, and Schaudinn has demonstrated that the spirochete of relapsing fever multiplies in the intestines of the bedbug and is voided with its feces. The contamination by its feces of the organs by which the insect feeds is a method by which relapsing fever is spread from person to person; it is also transmitted

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by the blood of the insect through abrasions of the skin.

Marchoux and Salimbeni found in a disease fatal to fowl in Brazil, a spirochete that was transmitted by the fowl louse or tick (argus miniata), and Sakharoff found in the blood of geese suffering from an epidemic form of septicemia, a spirillum which, when innoculated into healthy birds or transmitted by the biting of the fowl louse or tick, produced the disease —the geese suffering from diarrhoea and dying in about a week. He named this spirillum anserum. It resembles the spirochete Obermeieri and is actively motile. The fact that organisms causing these diseases in fowls are transmitted by the bite of insects, and that relapsing fever can be transmitted by the bedbug as malaria and yellow fever are transmitted by mosquitoes, suggests the possibility of transmitting syphilis in a similar manner, and this is more probable when we consider the relationship which appears to exist between the causative organisms. The flea may be a possible factor in spreading this disease, as it has been shown to transmit a trympanosome, or the bacillus pestis, from rat to rat and from man to man. And it is not beyond credence that man may be inoculated by biting flies with equine syphilis, known as"Dourine," and it is even possible that a vaccine may be obtained from this source.

As early as 1893 Smith and Kilbourne showed that the "Texas fever" affecting cattle was transmitted by a tick (Boophilus bovis), from one animal to another, of the organism Pyroplasma bigeminum, and Wilson and Chowning (1905) have reported the infection of man by a similar if not identical organism in the so-called "Montana spotted fever," which they believe to be transmitted by the tick (Dermacentor) from the gopher to man.

Metchikoff and Roux demonstrated that the virus of syphilis did not pass through a Berkfeld filter, and that it was easily injured and destroyed by low degrees of heat, being rendered inactive after heating for one hour at 51 degrees C., or in half an hour it heated to 60 degrees C. Glycerine does not destroy its pathogenic power.

We have long been acquainted with the fact that various spirochete and spirilla inhabit the body, especially the mouth and about the genitals, and Metchnikoff points out that previous writers had suggested the possibility of a spirochete being the cause of syphilis. Donne, in 1837, and Alvarez and Tanel in 1885, referred to this. The organism they saw was doubtless spirochete refringens, but Bordet and Gengou, early in 1902, observed fine spiral organisms in material from a chancre and from a mucous patch, but, as it was not constantly found by them, they did not venture to ascribe etiologic importance to it. Horand (1902) in blood obtained from the arm veins of a syphilitic child, found actively undulating needle-like bodies darting in various directions. Refringent bodies were seen in and around the red blood corpuscles, and red corpuscles containing granules were observed, as well as sporulating bodies, especially numerous in the mucous patches. He concluded the pathogenic agent of syphilis to be a parasite of evolution, a protozoon.

In March, 1905, Schaudinn recognized in a smear preparation obtained from secondary syphilitic papules, a spiral organism which he called spirochete pallida, and which he described as an extremely delicate spirally twisted organism varying from 4 to 14 microns in length (averaging 7 microns) and from an immeasurable thinness to one half of a micron in thickness, having from three to twelve corkscrew-like turns in its middle and tapering in both directions to pointed ends. He believed it to have an undulating membrane, but this was not satisfactorily shown. Flagella have since been demonstrated by Hexheimer and Loser, whose findings Schaudinn confirms, for he has, by means of Loeffler's mordant stain, been able to make out flagella at both ends, and sometimes, if not always, two flagella are seen at one end. He now doubts the existence of an undulating membrane. The organism is actively motile, moving in the direction of its long axis with a rotary motion, coming to a standstill and resuming its course or going in the opposite direction. It also possesses sinuous and undulating movements affecting the entire body. The character of its curves, its tenuous form, as well as its refractivity to stains, makes its identification relatively easy; yet frequently diligent search is required to find the organism, and the fact that upon the ulcerating surfaces of syphilides other spiral organisms, not limited to specific lesions, may be found, adds to the difficulty and sometimes confuses.

In the interior of syphilitic lesions the coarser, more easily staining spirillar forms are less numerous or absent, but usually even here it is associated with the larger, coarser and more readily staining spirochete refringens from which the treponema pallidum can be differentiated by its smallness, delicacy, faint refraction of light and especially in the nature of its coils, which are corkscrew-like, narrow, deeply bent and regular. These characteristics are constant whatever the source of the specimen, whether it be primary lesion, gland, mucous patch, papule, bulla or syphilitic liver, whether the disease be congenital or acquired.

Vuillemin regrets that the probable organism of syphilis should have been called spirochete pallida, a name created by Ehrenberg for the spirochete plicatile. He proposed the name "spironema pallida" for his spiral protozoon with pointed ends which differs from the trypanosomes in the appearance of the undulating membrane and flagelliform prolongations. As the name spironema had been given to another organism with different characteristics Schaudinn suggested that the new organism be called treponema pallidum, which is more expressive and characteristic. Vuillemin approves and I shall hereafter use this as the name of the organism of syphilis.

Vuillemin adds that upon further investigation the organism will doubtless prove to be a protozoon. This gives greater value to the observation by Horand in 1902 "of refringent bodies as well as granules in the red globules and the presence of sporulating forms," and to the finding by Castellani of spiral organisms in four out of eleven cases of Parangi or "Yaws," considered a modified form of

syphilis, one variety being identical with the organism described by Schaudinn. In three of these cases presenting spiral organisms and one that did not, were also found peculiar oval, chromatin containing bodies, regarding which he does not offer any explanation, but which may be a stage in development or possibly an independent organism.

The constant presence of the treponema pallidum in specific lesions, its finding in the blood, in the organs and in the lesions of congenital syphilis, in the experimental leisons produced by human syphilitic virus in monkeys and on the other hand its total absence in any other pathologic condition, appears highly suggestive, although the conclusive evidence for its etiologic character is not yet made out.

It is a very fortunate co-incidence that Schaudinn's discovery was preceded by the success of a number of investigators, Roux, Metchnikoff, Neisser, Flexner and others in inoculating syphilis into monkeys, thus establishing the possibility of dealing experimentally with many of the obscure features of the disease. This possibility will be of pre-eminent importance as to etiology, and we may expect with a great deal of confidence, that it will assist in demonstrating the etiologic role of Schaudinn's organism. The inoculation of these and possibly other animals will doubtless play an important part in elucidating many problems in human syphilis. Among such problem are: The immunity of the mother who gives birth to a child infected by the father at the time of conception; (Colle's law) the occasional occurrence of reinfection and the persistence of infectiousness and transmission of the disease into the third generation, of which a number of examples have been reported. Allow me to review briefly the work done in the experimental laboratory that we may appreciate its value:

Klebs, in 1879, was the first to employ monkeys for experimental inoculations with syphilis; Sperk, in 1886 and 1888, first successfully transmitted syphilis from man to monkeys and proved the possibility of successive transmission of the virus from animal to animal.

Metchnikoff and Roux were led to employ the chimpanzee because of its zoological relationship with man, and this choice was particularly fortunate as this animal reacts in a constant and characteristic manner and follows closely the course of inoculation in humans. After the inoculations, the scarifications quickly healed, no visible lesions appearing until the twenty-sixth day, when a small vesicle increasing in size and becoming indurated was noted on the prepuce; the lymphatic glands of the groin began to enlarge and became readily palpable. Eighteen days after the appearance of the primary lesion, small persistent lesions appeared on the tongue and three weeks later other lesions appeared on the lower lip as well. These erosions were regarded as mucous placques. Just fifty-six days after the inoculation, papules were noted upon the thighs, abdomen and back. The peripheral zone of these papules was at first red, later becoming pigmented; the mid-zone was paler and became covered in the center with a scaly crust. On scratching, serum exuded. After a month, these papules healed but markings were visible for some weeks. Later, the animal developed a paraplegia. They also showed that the syphilitic poison was transmissible from ape to ape without undergoing appreciable alteration of quality as evinced by the effects produced.

Neisser's and Lassar's experiments confirm the preceding. They describe secondary luetic papules on the hands, feet and about the anus of apes, which were studied histologically by Becker and Mayer and shown to agree with corresponding lesions in man and similar conclusions were arrived at by a study of Metchnikoff's specimens by Arnal and Salmon. Flexner, from his own experiments, was able to establish the essential identity of experimental and acquired primary lesions and doubtless the use of the higher apes will aid us in time to solve many disputed points in human syphilis.

The question naturally arises, What is this organism found in the lesions of syphilis and what is its relation to other spiral organisms?

In a recent article Blanchard reviews our knowledge of and classifies these organisms, as follows:

I. Spirobacteria, vegetable in origin.
   Genera—Spirosoma, from the nose and throat.
   Vibrio, as the comma bacillus, etc.
   Spirobacillus.
   Spirillum, from stagnant waters, etc.

II. Trypanosomidæ: protozoa.
   Genera—(a) Spirochete, to which belong those found in stagnant water and in the secretions of the genitals and intestinal tract, their ulcerating surfaces and neoplasms. Those found in animals which associate with man, as the dog, rat, etc., and those which have been recognized as of pathological importance, viz.:
   Spirochete (Obermeiri, 1873) relapsing fever.
   Spirochete, refringens (Schaudinn, 1905).
   Spirochete, pallidula (Castellani, 1905), in parangi or yaws.
   Spirochete, Vincenti—ulcero-membranous angina.
   (b) Treponema (Schaudinn) syn. (Spirochete, Spironema).
   Species: Trep. pallidum.
   (c) Trypanosoma.
   Species: Tryp. Gambiense (Dutton).
   Sleeping sickness and allied diseases; and Trypanosomes found in animals (the horse, rat, etc.).
   (d) Trypanoplasma: found in

fish, frogs, etc. Four species have been described.

Of what value will a comparative study of these spiral organisms be, in making a diagnosis?

When we recall that Blanchard describes nearly two dozen spirillum and twenty-one spirochete, it becomes evident that we must limit the field of our review. The comparative study of these microorganisms shows the vast differences which exist between the spiro-bacteria and the protozoan trypanosomidæ to which the spirochete or, more properly, treponema of Schaudinn belongs. It also shows how members of both groups are able to adapt themselves to special conditions of life as parasites and the degree of virulence and the varied roles they play in human and comparative pathology as well as pointing the way to new fields of research.

It is beyond the limit of this paper to consider all of these and I shall be content with calling your attention to those that are commonly found or likely to be associated with the treponema pallidum in the various syphilitic lesions of the genitals, anus, mouth and nose, and those found in the blood. It may be well to state briefly the characteristics of the various groupings described by Ehrenberg and amended by Loeffler and others.

Spirillum are *rigid cells* long, spirally bent, somewhat like a corkscrew with usually a polar bunch of flagella of many long principal and several short accessory ones.

Trypanosoma, distinguished by a somewhat long body, are more or less spirally twisted, with an undulating membrane and one to several flagella, together with a "flagellum root" and one nucleus. They are exceedingly motile and vary in size, being two to three microns in breadth by eight to thirty in length. They are transmitted by biting insects.

Spirochete are flexible, long, spirally coiling threads possessing locomotion by means of an undulating membrane as well as by flexion and rotary movements. In some varieties, flagella have recently been shown to exist.

We will first consider the long known spirochete of relapsing fever, the spirochete Obermeieri. Large, flexible, motile, threads, coiled like a corkscrew, with pointed ends, 1 micron in thickness, 10 to 40 microns in length. Flagella not known. It stains readily with anilin dyes. It is not stained by Gram's method. Ganther recommends freeing them of part of their albumen by means of a 1 per cent to 5 per cent acetic acid solution before staining.

Historically of interest, is the spirillum plicatile, occurring in marsh water during the summer months, interesting because it was named by Ehrenberg in 1833, spirochete pallida, but it is easily distinguished from Schaudinn's organism by its size, being 2.25 microns in breadth, 110 to 125 microns in length, and by the fact that the ends appear bluntly cut off and the threads have both primary and secondary windings, the former being of equal size, but the latter being often irregular. They exhibit rapid movements and stain readily with anilin dyes. During cultivation they break into long rods, then short rods and finally cocci, somewhat after the manner of Beggiatoa.

In lesions about the genitals we must distinguish Schaudinn's organism from the spirillum balanitidis, but these stain readily, are larger, coarser, with wave-like curves and blunt rounded ends.

In specific disease of the nose we may find the treponema associated with the spirillum nasalis (of Weibel) which are non-motile curved rods and spirilliform filaments.

Associated in lesions of the mouth may be the spirillum dentium (Miller), which, though pointed, are ten to twelve microns in length, and the spirillum linguae (Weibel), which occur as spirilla, spirillar filaments, curved rods and involution forms, and are distinguished from the other forms described by Weibel by being stained by Gram's method.

Occurring in saliva and about diseased teeth are curved rods very similar in appearance to the comma bacillus, the spirillum sputigenum (Miller), which has flagella on its sides and not on the ends.

In lesions about the soft palate and pharnyx or tonsils, we may also find the spirillum of Vincent's angina associated with the fusiform bacillus. The fusiform bacillus are non-motile, long slender rods slightly bent, 6 to 12 microns in length, somewhat larger in the middle and usually with pointed ends. They do not stain by Gram's method, but stain fairly well with Loeffler's methylene blue and anilin water gentian violet, but best with carbol-fluchsin. The spirillum, also spoken of as spirochete, which is associated with the fusiform bacillus in a symbiotic relation, is long and delicate with 3 or 4 turns and usually actively motile. They stain uniformly but much less intensely than the bacilli and may be easily overlooked. They do not stain by Gram's method and are much more easily decolored than the bacilli.

I have previously pointed out the differential characteristics of the spirochete refringens, so frequently found associated with the treponema pallidum that the relation of symbiosis has been suggested. The difficulty of satisfactorily and quickly staining this organism of syphilis will doubtless soon be removed. Giemsa's stain has been used by most of the investigators, and, so far, is the base of all satisfactory stains. The modification of this stain for tissues, by Levaditi, by the previous use of silver nitrate has also been applied to smears, and recently Goldhorn's blood stain, intensified by Gram's iodine solution, has given rapid and excellent results.

In the primary sore as well as in the enlarged glands and mucous patches, the treponema is found associated with the spirochete refringens. In the lesion, especially if the chancre assumes a phagedenic character, a fusiform bacillus has been found. This bacillus resembles the fusiform bacillus associated with a spirillum in ulcero-membraneous angina (or Vincent's angina) and probably has a similar symbiotic relation. Delamer and Tanasesco state "at times the bacilli assumed the form of spirals and suggests possible developmental relation."

Hirxheimer and Hubner first demonstrated the

treponema in the tissues, and Burnet and Vincent made sections of a chancre of five days' duration, the tissue being stained by Levaditi's method, and found the parasite. Few, in the central portion, but numerous in the papilla and connective tissue, as well as in the zone of infiltration. That the treponema is found in limited areas principally about the blood vessels, explains its absence from many smears obtained from primary sores and mucous patches, and this should be borne in mind when collecting material for examination.

So far as we know the treponema pallidum is the only spiral organism which penetrates the deep tissues affected by primary and secondary syphilis. They invade the tissues and lymph spaces, and in this manner cause adenitis and enter the vascular circulation. The presence of the organism in the walls of the vessels and about them in the perivascular spaces, explains the occurrence of arteritis and periarteritis. The absence of the organism from the indurated areas suggests that the sclerosis resulting from perivascular infiltration by round cells is a factor in the local destruction of the parasite.

Veillon and Girard found the organism in sections of a syphilitic roseola of four days' duration. The section showed intense congestion of the capillaries and beginning perivascular infiltration. The organism being found in the sub-capillary vessels and in the terminal capillaries of the papilla, only few being found in the perivascular nodules. From this it would appear as if the roseola was due to a true parasitic embolus lodged in the terminal capillaries of the skin followed by a perivascular infiltration. It is because of the depth of the tissue invaded that it is necessary to use a long acting blister to obtain serum for examination from the secondary skin lesions of syphilis.

Levaditi, working with Salmon, found the organisms in sweat glands and suprarenals as well as in the hepatic tissue and in the bronchial epithelial cells and pulmonic endothelial cells of a baby dying of hereditary syphilis (sixteen hours after birth). In the lungs many treponema were found along the pulmonary capillaries, and in the perivascular lymph spaces, as well as in the epithelial cells lining the alveoli and bronchial tubes. Hence Levaditi suggests they may be present in the sputum of certain syphilitics and a means of infection.

In the liver, the treponema are abundant around the intralobular venules, from which they appear to radiate into the intercellular spaces between the hepatic cells. They are also abundant in the perivascular tissue and the endothelial walls of the vessels, but none were found in the lumen of the vessel. Yet their perivascular distribution points to their dissemination by the vascular system, primarily from the lymph spaces by the lymphatics.

In the section of the liver of a child who died four hours after birth of syphilis and which had been stained by Levaditi's method I found the treponema about the liver cells in the intercellular spaces more delicate and lighter staining than those in the spaces between the connective tissue cells of the portal tracts or even about the blood vessels. This variation in the appearance of the organism is supported by the observations of Richards and Hunt, who state that it appears in three forms, possibly developmental, evolution or involution forms, differing in thickness, length, and the number of spirals; one form being thick and straight or but slightly curved, a second of the same thickness but with the well defined spirals, and the third exceedingly thin, distinctly spiral, with a large number of turns and very long, the latter being found in the deeper tissue. Most of the observers believe these to be distinct forms. Besides this, I found globular cells with granular bodies deeply staining such as are described by Horand in the blood from an arm vein of a syphilitic child and by Castelleni as occurring in "yaws." These cells contain six to eight or more distinct granular masses regularly arranged, some of them globular in form, others more nearly oval, larger and roughened, apparently approaching the periphery of the cell. In one instance it appeared as if the cell wall had ruptured and they were about to be extruded. These granular masses, arranged in regular form, recall the state of complete segmentation observed in the malarial infection and similar to that described and figured by Mallory as occurring in measles and scarlet fever, and to the primary sporoblasts occurring in the nuclear stage of the development of cytoryctes variola s. vaccinae.

We should not forget in this connection the possibility of these bodies being the Cytoryctes luis, discovered and described by Siegel, and which can usually be found in the circulating blood of syphilitics, the cycle of development of which has been followed through monkeys after inoculation, and the findings of Siegel confirmed. It is quite possible that this flagellate has some bearing upon the cause of syphilis, and it is not beyond reason to think there may be some connection between the two organisms, and Schutz calls attention to the way in which both are always found together and close to or inside the red corpuscles.

One must of course be cautious, but, from the overwhelming array of evidence presented in literature, I feel we must conclude that the treponema pallidum does not occur in the healthy tissue of man or monkeys nor in tissues affected with other than syphilitic lesions. From its constant occurrence in syphilitic lesions and its absence in healthy or otherwise diseased tissues, one may assume with probability bordering on certainty, that this organism is the cause of syphilis.

I feel that we may conclude with Metchnikoff that taking everything into consideration the evidence points toward syphilis being a chronic spirillosis.

Levaditi considers congenital syphilis as being, usually, *an acute form of the disease,* although it may assume a subacute or chronic form. Neisser found the blood of children with inherited syphilis swarming with the organisms, and inoculation of apes was always positive, an observation confirmed by Hoffman. A monkey inoculated with mucous from the nose of such a child gave positive results. Two children, apparently healthy until several

weeks of age, and in whose history no suspicion of syphilis existed, developed the disease. Neisser suggests that an examination of the blood or secretions might have shown the organism and an early diagnosis have been made.

The methods in laboratory diagnosis will vary with the stage of the disease. We may examine the blood or secretions. We may examine scrapings from the primary sore or excise it and make sections. We may aspirate and examine fluid from an infected gland or excise and prepare sections; we may examine the deep scrapings from a mucous patch or the serum obtained by a slow and deeply acting blister over a secondary skin lesion or we may excise and section the same and, lastly, confirmatory inoculation of apes or monkeys may be made.

My object in bringing this subject before you is to point the way to the early recognition and differential diagnosis of syphilis, a matter of the greatest importance to the physician, the individual and the community.

Answering queries and closing, Dr. Davis said: I believe the presence of the organism in such great numbers in the walls of the blood vessels explains the arteritis and periarteritis which occur in syphilis.

As to the methods of transmission to the offspring by the father or the mother, there is no doubt but that the ovum is affected directly from the mother and through the spermatozoa from the father, but the form in which the organism exists has not been determined. Neither has the form in which the organism is present in tertiary lesions been demonstrated. It may be in a developmental or "resting stage"; but from the histological analogy of the gumma to a tubercle, it is possible that the organism exists in a condition very difficult to stain, similar to the bacillus tuberculosis in tubercle.

This I believe is probable, for contrary to what has usually been taught, Neisser states "that positive results are obtained in all inoculations from tertiary lesions, if these lesions have not undergone necrosis or suppuration; but if specific gummatous degeneration or suppuration has occurred, then the inoculations are never successful."

Patients from whom some of these inoculations were made had acquired syphilis ten or fifteen years before. It appears immaterial whether the tertiary manifestations occur at an early or a very late stage of the syphilitic infection.

Neisser therefore warns that every tertiary manifestation should be regarded as *contagious,* although the danger is much less than in primary or secondary manifestations.

TECHNIC AND STAINING OF TREPONEMA PALLIDUM.

By E. L. LEONARD, M. D., Los Angeles.

The treponema pallidum has been demonstrated by many independent observers in chancres and mucous patches, but as yet no one has found the organism in tertiary lesions. Levaditi demonstrated the treponema in the liver, suprarenal gland, lung and other organs of an infant having congenital syphilis, sixteen hours after death. He also found large numbers in the sweat glands.

In obtaining material from chancres, Burnet and Vincent report the parasites rare in the center, but very numerous in the papillæ and connective tissues in the zone of infiltration. Specimens should be made from deep curettings. The organism may be seen without staining, but this is very difficult on account of its delicate contour. It is motile, with a rotary motion forward and backward.

Closely associated with treponema pallidum in syphilis is another distinct organism, spirochete refringens, which has been found in other diseases besides lues, such as carcinoma, tuberculosis, acute gonorrhea, acne vulgaris, impetigo, etc.

The treponema pallidum is difficult to demonstrate where pus is present. Very few are found superficially in primary and secondary lesions, but they are more abundant in the deeper tissues. In centrifuged specimens of blood organisms have been found, but they are not present in large numbers in the peripheral circulation.

So far as reported, treponema pallidum has been found in the following locations:

1. Juices of glands. 2. Chancres. 3. Flat condylomata (deep and superficial). 4. Inguinal glands. 5. Splenic blood. 6. Roseola. 7. Congenital syphilis. 8. Centrifugalized peripheral blood. 9. Excised papules. 10. Veins of syphilitic child. 11. Mucous patches.

In gumma and other tertiary lesions, none have ever been demonstrated.

Methods of examinations from fresh tissue fluids are as follows: Wash the surface with normal salt solution, use cocaine if necessary and curette the lesion rather deeply below the surface. Smear on a clean slide or cover glass. Hypodermic needles may be used for aspirating glandular fluids. The smears should be made very thin. The most satisfactory method of staining is Giemsa's method.

Fix smears in the air or in osmic acid fumes. Harden in absolute alcohol from 25 to 60 minutes.

Stain should be diluted ten times and smears covered for ten to twenty minutes. Better results are obtained if a one per cent carbonated potassium solution be added to the diluting water. Wash in distilled water, dry and mount.

The treponema pallidum will be found after diligent search, stained a faint pink. The spirochete refringens is usually present in large numbers, and is to be distinguished by its larger size and prominent outline and deeper staining. Many modifications of the Giemsa method have been employed by Marino, Wright, Leischman, Zabolotny and Loefler with varying results, but Giemsa's method seems to have been most widely used. Dr. L. B. Goldhorn has prepared a special modification of his polychrome methylene-blue blood stain suitable for demonstrating the treponema pallidum. Staining is complete in from two to five seconds. By the use of this stain distinct flagella may be demonstrated on spirochete refringens, but none have been found on the treponema pallidum.

Fresh specimens have been examined, and although the treponema is highly refractile and ac-

tively motile, it is exceedingly difficult to find on account of the delicacy of its outline.

Levaditi, assistant to Metchnikoff at the Pasteur Institute, has made a special study of sections of syphilitic tissues and the staining method used by him gives very beautiful results.

1. Place in one per cent silver nitrate for three days.
2. Pyrogallic acid, 4; formalin, 5; water, 100. Leave in this solution twenty-four hours.
3. Wash in water and stain with undiluted Giesma stain three or four minutes.
4. Clear with oil of cloves, bergamot or xyol.

Treponema pallidum stains black and appears very much swollen by the silver nitrate. Cells are blue and connective tissue yellowish green. Care should be taken not to make the sections too thin.

This method seems to be of more value for tissues than the others studied, although many modifications have been worked out by various investigators, who report fairly good results.

On account of the fact that the organisms are so abundant in the perivascular spaces, it is presumable that the vascular system is the mode of transmission.

The practical application of all this technical work is of great importance and may be used in many ways of confirmative proof that the lesions existing are syphilitic. Deep scrapings from chancres and mucous patches, aspiration of glandular fluids and the examination of fluids from secondary skin lesions, all show the organism. Examination of the serum after the application of the slow and deeply acting blister, has been proved to contain the treponema. Levaditi suggests that as the organisms are present in the alveolar and bronchial epithelium of the lungs, they may be present in the sputum of certain syphilitics.

One would infer that the demonstration of this organism was as simple as that of a certain malarial parasite, while, as a matter of fact, our search for these tiny delicate bodies has occupied many hours.

"SUBNORMAL ACCOMMODATION AS A MANIFESTATION OF HYSTERIA.*

By F. B. EATON, M. D., San Francisco.

The term "subnormal accommodation," which has a considerable vogue, is open to the objection that it is merely a symptomatic title. The condition certainly has been largely overlooked in the routine of eye tests, and the indications it affords for treatment have not been either recognized or utilized as they should.

For a good many years I have carefully recorded the range of accommodation in all cases of refraction, and in addition have systematically tested the practical utility of the rules of Landolt, i. e., that one-third of the amplitude of accommodation, and two-thirds of the amplitude of convergence must physiologically be kept in reserve for comfortable binocular vision. My findings emphatically corroborate the statement of Landolt. But, with other observers, I have been puzzled at times by contradictory findings. It is well known that deficient range of accommodation is common in the neurasthenic, anemic, etc., and, as a routine the oculist prescribes tonics, full diet, and the like, telling the patient that his "glasses" will relieve him only after he has been "built up."

Gradually I have come to recognize as typical, a group of asthenopic cases presenting a decidedly contradictory complex of symptoms.

These asthenopes are generally young—under 35. Some are children. Usually the ametropia is moderate in amount, and most often is a hyperopic astigmatism. But all are either deficient in accommodation or convergence, or both; and not all, by any means, show evidence of ill health.

About twelve years ago, Parinaud, chief of the eye clinic of the Salpetriere Hospital in Paris, as the result of an exhaustive study of many hundreds of cases of hysteria seen at the Saltpetriere, announced that the earliest and most constant symptom of the condition is a diminution of the range of accommodation simulating a paresis of the ciliary muscle. Convergence insufficiency is also nearly always present. Moreover, he found that true to the vagaries of hysteria, both accommodation and convergence presented certain puzzling variations. For in hysterics the far and near points of both these functions approach each other. That is, the far and near points of accommodation in approaching each other give rise to subnormal accommodation for near and spasm of the accommodation for distance; but spasm for near is often present. Likewise, the near point of convergence is farther off than normal (exophoria), and the far point nearer for distance (esophoria, convergence excess).

These anomalies of the functions I term paradox symptoms. Parinaud found that they are frequently present in children as the earliest manifestations of hysteria, and states that Charcot relied upon them in arriving, in difficult cases, at a diagnosis of the neurosis. Therefore it behooves the oculist to be on his guard whenever these paradox symptoms are present in patients of either sex; and to inquire patiently and carefully into the family history of such individuals, if he has not already done so. If he does not, he is doomed to failure in his attempts to relieve many cases of asthenopia by optical means; and this in spite of the most painstaking and accurate correction of the ametropia; glasses affording only partial, or no relief for the near. Naturally, any marked deviation from normal health, especially organic conditions, must be taken into consideration.

Treatment: Obviously treatment is to be directed against the hysteric neurosis. What will it be? Drugs have their limit. Psychic should be the basic treatment. Though the prejudice against waking hypnotic suggestion is melting away, comparatively few physicians employ it in America, either from fear of opposition and ridicule on the part of their wiser (?) colleagues, or from unad-

* This paper, read in the Section on Ophthalomology of the Medical Society of the State of California, April 17th, 1906, was destroyed by fire. It is rewritten from memory.

mitted ignorance of the same wise ones of the physiology and psychology of hypnotic therapeutics.

Personally, I need not hesitate to state my belief that a wise and skillful use of waking suggestion is the remedy par excellence for the condition here considered, neglecting, of course, no clear indication for tonic or other treatment. To show that such suggestive treatment, though unconsciously employed, is no new thing, I beg to recall the once familiar and successful method for the cure of asthenopia devised in the '60s by Dr. Dyer. His method was simple. The patient was instructed to read for five or less minutes three or four times first day, and by a watch, no more, no less; and to add one minute each day. By the time this had aggregated half an hour the patient generally was nearly well. This was a purely suggestive form of treatment, the watch, the positive directions, etc., acting upon the patient's mind. Similarly I have found the so-called "muscular exercise" by means of prisms base out for convergence insufficiency, acts mainly through suggestion. The interni are normal in strength in all but high, uncorrected myopia. It is the arousing of the will to converge and accommodate, and the absolute assurance by the physician, of relief, that accomplish the end. One case may be cited to illustrate what may be termed masked hysteria manifesting itself ocularly:

Miss M. S., aet., 24, complains of eyeache, severe headaches; blurring for near, etc. Health excellent; good sleeper. Sometimes tires easily; can use eyes comfortably for about fifteen minutes. Status Obj. V. O. U. 6-5. Punct. prox. accom. O. U. 3D. exophoria in accom. 10 degrees.

These results led to a closer inquiry into her history It transpired that her mother for 16 years had not been able to leave the house alone because of unfounded fear. "Nervous fear of being left alone." One sister is "peculiar, and has something the matter with her brain. She is 23."

Now, had I not been put on guard by the contradiction of a robust patient with normal refraction, having only 3D of accommodation at the age of 24, I would, perhaps, have assumed neurasthenia, etc., as the only troubles to be treated; whereas the defective accommodation was hysterical, as also shown by spasm of accommodation. This is a common type of patient met with in over-worked and anxious students, who are also often under-nourished. I therefore commend to my colleagues a consideration of the facts presented by Parinaud and herein.

NOTES ON HYDROCYANIC ACID POISONING.

By T. C. McCLEAVE, M. D., Berkeley.

The infrequency of recovery after hydrocyanic acid poisoning may perhaps give the following report at least some clinical interest, although it contains no new or important scientific data.

A Berkeley hostelry being infested with roaches, the entomologists of the University were appealed to for aid in their extermination, and it was decided to apply to the house the method which is used to rid trees of insects. To this end, potassium cyanide and sulphuric acid were placed together in a receptacle and the vessel was set in the pantry in the cupboards of which the insects appeared chiefly to have their habitat.

The vapor generated by this chemical admixture is hydrocyanic acid, exceedingly deadly and highly volatile, and although it was supposed that precautions had been taken to limit it to the immediate vicinity of the pantry, the fumes diffused between the partitions to distant parts of the house, and especially passing upward through an open clothes chute, escaped into a room above through defects in the walls, quickly overcoming the occupant.

This young woman, who had retired but was reading in bed, afterwards described her sensations as follows: She first noticed the peculiar odor of the gas, and immediately feeling nauseated arose to get a drink of water and open her window. She drank the water but was so overcome by vertigo that she had to lie down at once. She then vomited copiously, after which she felt for a brief period a terrific "fullness and swirling in the head," almost immediately, however, losing consciousness. She either fell or tried to get out of bed again, for persons passing along the hall, and, attracted by her loud breathing, breaking in the door, found her almost moribund upon the floor.

The symptoms were as follows: There was very profound cardiac and respiratory depression and extreme cyanosis. The pupils were widely dilated, conjunctivæ deeply injected, and there was marked congestion of the nasal and buccal mucosa. The lips were covered with white froth, and there was trismus and general muscular rigidity, with occasional tremors over entire body. The skin was blue, cold and moist. Urine was voided involuntarily. The patient, as before noted, became quickly unconscious and remained so for some six or eight hours. Recovery seemed hopeless. Treatment consisted of artificial repiration, external heat, the prolonged administration of oxygen, and the free hypodermic use of the usual cardiac and respiratory stimulants. Epinephrim, given hypodermically in the subclavicular region in a single dose of 45 minims, 1-1000 solution, was followed at once by improvement in the cardiac action, and, I feel, very largely determined the recovery of the patient. The respiratory and cardiac functions gradually became stronger, the muscular rigidity disappeared, and a recovery progressed; in about 3 hours vomiting again began, the vomitus being of a character to indicate some extravasation of blood into the stomach.

This nausea and vomiting persisted about 48 hours. There was again the violent headache and extreme prostration, recovery not being complete for many days. The cyanosis persisted for several days, the fingers and toes especially being almost black long after the circulation was well reestablished, undoubtedly dependent upon changes in the blood itself. This was also so with all the patients referred to later. The blood of one on the second day showed somewhat less than 4,000,000 red cells, and 9,000 whites. The differential count was normal and the red cells showed no abnormality in structure. There appeared to be some free pigment.

* Read before the California Academy of Medicine, January, 1906.

There was unquestionably considerable hemolysis, though no immediate blood examination was made. The urine was scanty and smoky for several days, but showed no albumin.

In addition to this patient, everyone assisting in removing her from her room, some five or six persons, was also overcome by the deadly vapor. Included in this number was a physician living in the house, who, after instituting the proper measures for the restoration of the patient, was herself rendered sick and helpless, hence my participation in the events described. Even I, on my arrival encountered sufficient of the gas in the air and in the breath of the patient as I worked over her to suffer some slight poisoning. Each of these persons suffered the same terrific headache, vertigo, distressing nausea and vomiting, and extreme prostration, and each presented in a lesser degree the appearance of the first patient. All were sick for several days. I myself experienced only a slight vertigo and a sense of weight upon the chest and of constriction of the throat, with more or less bronchial irritation, transient disturbances, sufficient, however, to give me some personal appreciation of the terrible potency of the poison.

This group of cases was very interesting, terminating happily as they did, and I think perhaps unique and therefore worthy of record.

SURGICAL ANESTHESIA WITH HYDRBROMATE OF HYOSCINE AND MORPHINE.

By EMORY LANPHEAR, M. D., Ph.D., LL.D.,
St. Louis, Mo.

Much has been written of the scopolamine-morphine combination as a substitute for chloroform and ether for surgical anesthesia; recently this has been rather against it because the *Medical World* collected 14 deaths from its use in 1500 cases—rather a startling contrast to the mortality from chloroform, 1 in 2,075, or ether, 1 in 5,112 (Gurlt's statistics, based on analysis of 300,000 cases). In the *International Journal of Surgery* (February, 1906) Abbott, of Chicago, called attention to the fact that scopolamine and hyoscine are identical from a chemical standpoint. Knowing that hydrobromate of hyoscine is a drug of known strength and especially valuing the fact that it is, apparently, perfectly safe —whereas scopolamine is notoriously unreliable (Merck saying that scopolamine of —20 rotation is serviceable, but that much of the drug on the market is as low as —2 rotation and practically valueless) I determined to give it a trial. I have made a thorough test and as a result I think I can say it is nearly or quite as effective as scopolamine; and perfectly safe in appropriate cases.

Among the operations done under this form of anesthesia may be mentioned hysterectomy, two for strangulated hernia with resection, decapsulation of the kidney, trephining, abdominal section for appendicitis, hydrocele, posterior section for abscess of liver, trachelorrhaphy, perineorrhaphy and radical cure of hernia. One of the herniotomies required more than two hours, during which the patient moved but once; she remembered nothing of the operation next day.

Precautions.—Certain precautions are essential: (1) The hyoscine should be free from atropine, since atropine exactly antagonizes the effect sought for, hence the hydrobromate of hyoscine used must be from a reliable manufacturer; and there must be no atropine in the morphine tablet.

(2) The utmost silence must be preserved in the operating room; otherwise the patient becomes restless and finally wide awake and excited.

If there is to be discussion as to the nature of the trouble or the character of the work to be done, the patient's ears should be plugged with cotton, or a few drops of chloroform given at the critical point so he may not become agitated from hearing the conversation.

(3) It should not be used in the very young, nor in those of extreme old age. Possibly it may be of danger in serious heart lesions. Abbott says it should not be given to those the subject of far-advanced nephritis. If the patient is nervous it is well to tie the hands behind the neck so that a sudden movement may not contaminate the field of operation.

(4) The stomach and bowels should be empty, as for chloroform anesthesia.

(5) A fresh solution should always be used because old ones decompose readily, just as with scopolamine.

Method of Using.—The method of using is as follows: One hour or more before the operation one-fourth grain of morphine and one one-hundredth of a grain of hydrobromate of hyoscine are given hypodermically. At the end of the hour the patient is put upon the operating table and allowed to go to sleep there; if not tranquil in a few moments, a second dose of the same size is given. There need be no hesitancy about the half-grain of morphine; the hyoscine antagonizes certain of its effects, so there is no likelihood of danger. If anesthesia is not complete a half-hour later, a few drops of chloroform by inhalation will cause almost instant snoring.

Effects.—(1) The analgesia appears to be complete for many hours. In two cases where loss of blood was great hypodermoclysis was ordered several hours after the patient was returned to bed; there was no indication of sensation when the large needle was introduced.

(2) The first effect is an excitement—in two of my cases delirium developed—with slight dilatation of the pupils. Then the patient becomes quiet and the pupils are midway between dilatation and contraction. Soon, in favorable cases, deep sleep follows.

(3) After the second injection (which arouses the patient) profound sleep will be noted in most cases; but some subjects insist upon muttering or even talking throughout the operation, though making no complaint about being hurt.

(4) Sleep continues for many hours in most instances if two injections are used. Friends must be advised in advance that the sleep may continue twelve hours or more.

* Read at the Annual Meeting of the Nevada State Medical Association, May, 1906.

(5) The patient can be aroused at any time by shaking or a loud command, and may be made to assist in changing position or to sit up for application of bandages, etc. In two or three minutes slumber is again deep and other operative work may be done.

(6) The secretions are not interfered with.

(7) Peristalsis is not arrested, as one would expect from so large a dose of morphine.

Remarks.—(1) Women seem to require less than men (which is true of any anesthetic).

(2) Ether should not be given with the hyoscine-morphine combination; if anything is needed chloroform is best.

(3) A beautiful thing about the method is the absence of vomiting—of great importance in abdominal surgery. Another favorable feature is the absence of post-operative pain; patients usually sleep all night following an operation and awake next morning demanding breakfast.

(4) It should be the ideal method of producing anesthesia for obstetrical work, particularly for delivery with forceps.

(5) Suggestion unquestionably plays an important point in the efficacy of the combination. (*a*) At the outset I say to the patient, "I am giving you an injection of medicine which will make you feel no pain, so ether or chloroform will not have to be used; go to sleep." (*b*) When the patient is upon the operating table ready for the second dose, if one be needed, I say, "You will feel no pain. If during the operation you are not asleep and know what is being done, do not move, and particularly do not kick or strike. Go to sleep, now, and remember you will not be hurt." By the time everything is ready, instruments sterilized, etc., the patient is usually asleep or nearly so. (*c*) During operation if the patient moves I say, "Lie still, it will not hurt." And so the suggestion is complete.

Disadvantages.—(1) The only serious disadvantage I have noted is that muscular relaxation is not absolute; so it is not applicable to very delicate work like that on the eye.

(2) It cannot be used *with a crowd around,* as in a clinic.

Advantages.—(1) Economy. About two cents covers the entire cost of several hours' anesthesia.

(2) No assistant is necessary in many operations—save as a precaution against law suits (abortions and the like).

(3) No nausea or vomiting; of especial advantage in abdominal work.

(4) No pain (or little) after operation; a great inducement to patients reluctant to submit to surgical treatment.

(5) Absence of fear of chloroform or ether on the part of either surgeon or patient; the advantage of not having to hurry because the patient does not take the anesthetic well, can scarcely be overestimated.

AN APPLICATION OF TREATMENT BY INDUCTION OF HYPEREMIA TO SMALLPOX. FROM SAN FRANCISCO ISOLATION HOSPITAL NO. 1.

To the Editor of the State Journal:—Within the last two years the treatment of various pathological lesions by artificially induced hyperemia has attracted increasing attention. It is now some six years since Bier announced the value of the method and its application to the treatment of joint disease. Later, his experiments were made to demonstrate the utility of this therapeutic measure in cases of skin infection.

Von Ebberts, of Montreal, has suggested that the efficacy of this treatment depends, as do the vaccination methods of A. W. Uright and the Finsen light's therapeutics, on a flooding of the diseased tissues by blood thus artificially induced.

In the contagious pavillion of the San Francisco County Hospital during the past year, we have treated some fifty cases of erysipelas by the application of a mixture containing equal parts of ichthyol and tincture of iodine. The method has given us uniformly good results, in most cases securing a distinct reduction in the duration of the disease. It has seemed probable that Von Ebbert's explanation of the rational of the Bier treatment would explain the success of this measure, for the iodine is certainly inductive of hyperemia.

With these ideas in mind, especially remembering Bier's success with superficial abscesses and skin infections, one seemed warranted in attempting to apply the principle to the treatment of mallpox. It is hardly feasible to apply a mixture of iodine and ichthyol to the whole body, so the paste was applied to the face in the hope that the scarring would be lessened, while a hot iodine bath was used to produce hyperemia of the body. Our cases have not been sufficient in number to draw material for a final report, but we have applied the treatment in seven cases, five discrete and two confluent. In none of the discrete cases was there any pustulation of those papules that had been painted, and the abortive papules quickly reverted and disappeared without scarring. In the two confluent cases the pustulation was very markedly modified, the smelling of the skin lessened and the healing of the lesions hastened. So much so, that on the fourth day after the application the face was clear of crusts and pus, and to our surprise the general condition of the patient seemed modified for the better, the secondary fever ranging only between 99° and 100° and enduring but two days.

The routine of treatment is to bathe the patient in a cleansing antiseptic bath, then if the face is swollen and painful to apply iced lead lotion. A mouth wash of 2% alumnol is provided and the nurse washes the mouth frequently with peroxide of hydrogen, glycerine and water. The eyes are washed with an alkaline wash and a few drops of 20% argyrol instilled morning and night. Cold compresses are then applied to the eyelids. After a few hours the face is painted with the iodine ichthyol. Usually the application is grateful, but if the mixture is not freshly made and thoroughly mixed before applying, there may be some complaint of burning. The slight irritation soon ceases in any case and in our limited experience the results in modifying the secondary infection and limiting scarring have been excellent. It is possible that the ichthyol forming an application impervious to light may aid the work of the hyperemia induced by the iodine, for many authorities seem convinced that the scarring is lessened by a restriction of light. A second application is made twenty-four fours later and if necessary a third. The crusting of the confluent cases usually occurs rapidly and the face is cleaned by the application of antiseptic poultices which rapidly clean the skin and leave it not smooth but in a much better condition than is the case after any other treatment within my knowledge. Iodine baths, 1 oz. of tincture to the gallon, are used for the body and have a definite effect in modifying pustulation.

I have no wish to claim that the method here outlined is an addition to our armamentarium; the list of cases is much too limited. But I do feel that

there is a promise of help for the patient, and I hope that others will give the routine a trial.

I hope in the near future to be able to present a detailed clinical report covering a considerable number of cases.

LANGLEY PORTER.

COUNTY SOCIETIES.

ORANGE COUNTY.

The Orange County Medical Association held its regular monthly meeting Oct. 2nd. There were present fourteen members and one visitor. The local agent of the New York Life Insurance Company came before the society, urging them to alter their by-laws to allow members to examine for that company at a less rate than $5.00. He read extracts from the New York law governing the expenditures of an insurance company for new business, and urged that with this law it was impossible for the company to pay five dollars for examinations. He admitted that the law would not be in effect until Jan. 1, 1907., and could give no good reason why they cut the fee so long before that time. The society took no action in the matter, deeming it best to adhere to their resolution to charge $5.00 or nothing.

Dr. Beebe presented the paper of the evening, subject, "Cholecystitis with Gall Stones," dealing specially with the factors causing gall stones.

H. S. GORDON, Secretary.

PLACER COUNTY.

The Placer County Medical Society met on the evening of October 6th, in the Auditorium at Grass Valley. The meeting was called to order at 8:00 p. m. by the President. The object of the meeting was to discuss the insurance situation now existing in Nevada county. Dr. Parkinson of Sacramento, the Councillor of District 3, was to have been the guest of the evening but was unavoidably detained. The insurance question was laid over till another meeting.

Three committees were appointed. One to draw up resolutions from the society concerning the careless way that physicians in the low lying district have of sending tubercular patients to the hills utterly unaware of their condition, and utterly regardless of others with whom they may come in contact. A second committee was appointed to revise the constitution of the society, and a third to attend to the legislative branches of medical practice in the state.

The following clinical material was presented to the members: A case of successfully treated fracture of the sacrum; a case of hypertrophic cirrhosis of the liver; air-gun shot wound of the orbit; a case of elephantiasis of the leg; a photograph of a supernumerary mamma on the arm of a man; a case of Renaud's disease of the hands showing the line of demarkation at the proximal phalanges. A pathological specimen of a stony heart with huge plates of calcification almost covering the heart.

Dr. Tickell read a paper on erythromelalgia which was a report of a case recently occurring in his practice. Dr. Mules read a paper on the Bier passive hyperemia treatment in inflammatory conditions. Both papers were fully discussed.

The following were elected to membership: Arthur Dangerfield, A. H. Ashby, E. C. Fabre-Rejotte, Lena Geraldson, P. Mix and Frank Walsh.

After the meeting the members adjourned to partake of a lunch generously supplied by the President, Dr. Jones.

J. H. MULES, Secretary.

SACRAMENTO COUNTY.

A regular meeting of the Sacramento Society for Medical Improvement was held Sept. 18, 1906, at the office of Dr. W. A. Briggs, President Dr. H. E. Wright in the chair. Present: Drs. Baldwin, W. A. Briggs, W. E. Briggs, Culver, Dufficy, Fay, Hanna, Henderson, James, Kerby, Look, McKee, McLean, Mules, Nichols, Parkinson, Pitts, G. L. Simmons, S. E. Simmons, Strader, Twitchell, Wilder, Wright, Hendrikson. As visitors, Dr. E. C. Turner and Chas. McKee.

Election of members: The Secretary having reported that the application of Dr. Geo. Briggs was in the prescribed form, that he held a diploma from Univ. of Cal., 1905, and a State of California license, 1906, a ballot was taken and the applicant unanimously elected a member.

Communications were received and filed from the Santa Barbara County Medical Society enclosing the programs of their July and August meetings. New Business: Dr. Parkinson, President of the Northern District Medical Society having reported that the annual meeting of that society would be held in November of this year, an invitation to that society to hold its annual meeting in Sacramento was extended by a unanimous vote of members present.

Dr. Parkinson reported his selection by the Council of the State Society to fill the vacancy in the poistion of Councillor from this district left by the death of Dr. Thos. Ross.

Dr. McKee, state senator from this district, called the attention of the society to the fact that General letter No. 1, from the Secretary of the State Society reported incorrectly the motion made by Dr. McKee at the meeting of the House of Delegates held on the evening of April 17, 1906, relative to the appointment of local committees in each senatorial district to confer with the members of the legislature on medical matters. That it had been his purpose to advocate the appointment of these committees after election and from among those members of the profession in the various districts who would be able best to work in harmony with whomever might be elected, which latter advantage would be entirely lost by appointing the committees at the present time. The secretary of this society was instructed to call the attention of the secretary of the State Society to the senator's statement and the suggestion embodied therein.

Report of cases: By Dr. Mules, a case of remittent phlebitis of both lower limbs, complicating advanced pulmonary tuberculosis.

By Dr. Twitchell, of paralysis of the radial group of muscles following the injection of boiling water hypodermically over the radial nerve by a morphine habitue who was endeavoring to practice asepsis. The paper of the evening was by Dr. J. T. Culver, on the topic "Sterility in Women." Discussion opened by Dr. W. A. Briggs and then becoming general. The next meeting to be with Dr. Dufficy on the third Tuesday in October.

E. M. WILDER, Secretary.

VENTURA COUNTY.

The regular meeting of the Ventura County Medical Society was held on Monday evening, October 1st, at the residence of Dr. J. C. Bynum, Ventura. Dr. Bynum read a well prepared paper entitled "The Benefit of Electricity in Certain Forms of Diseases." The X-ray, the high frequency, galvanic and faradic currents, were in turn adverted to, and their peculiar potentialities shown. President Cunnane opened the discussion, and was followed by all the members, each of whom showed himself familiar with the very latest developments of this wonderful and ever growing science.

At the conclusion, the society extended a vote of

thanks to Dr. Bynum for his very interesting discourse. Following this came an invitation to partake of a fine repast, which was served by Mrs. Bynum, assisted by her charming daughter, Miss Ruth. The dinner was voted a success, and was greatly relished. Host and hostess were given the thanks of the society for their cordial reception.

CHARLES TEUBNER, Secretary.

SAN JOAQUIN COUNTY.

The regular monthly meeting of the San Joaquin County Medical Society was held at the office of Dr. E. A. Arthur, Sept. 28, 1906. Members present: Drs. E. A. Arthur, S. E. Latta, R. B. Knight, A. W. Hoisholt, J. P. Hull, Ira B. Ladd, J. D. Dameron, H. W. Taggart, S. W. R. Langdon, H. E. Henderson, C. H. Harry and B. J. Powell; Drs. Cross and Smythe as guests.

It was the first meeting of the society since June, there being no regular meetings in the months of July and August. A committee of five was appointed to make suggestions as to the changing of the present fee bill and to report at the next meeting. It was determined to invite a few of the eminent men of the state to read papers or deliver lectures from time to time to the society. Dr. Arthur read an interesting paper on "Gonorrhea." The discussion was opened by Dr. R. B. Knight and participated in generally by the members present. After refreshments the society adjourned.

BARTON J. POWELL, Secretary.

PUBLICATIONS.

A Compend of Operative Gynecology. By William Seaman Bainbridge, M. D., The Grafton Press, New York.

This is a small volume of sixty-six pages, written for the use of students in the author's classes. Although free from originality or even completeness, it contains excellent short descriptions of the technique of the more common operative procedures used in gynecology.

The points involved in the various operations are briefly outlined; and the indications and contra-indications of the various methods are well stated.

The absence of illustrations seems to us a mistake.

A. J. L.

International Clinics, Vol. II. Sixteenth Series, 1906. J. B. Lippincott Co., Phila. and London.

This recent volume of the series contains some articles of unusual excellence, many of which are of extreme practical interest. The contributors are for the most part American; several of the articles, however, are written by English, French and Italian clinicians.

The papers are grouped into various sections; those of the greatest general interest are contained, perhaps, in the sections of medicine and surgery. Two of the papers on pulmonary abscess and its treatment are especially timely, since the question of surgical interference in various pulmonary conditions is being widely discussed at the present time. The article of Moffit on Clinical Types of Persistent Vomiting, and that of Lloyd on Hysterical Neuroses of the Stomach are both instructive. Two other papers are devoted to the Treatment of Nephritis: One by French from the medical, and the other Rovighi from the surgical standpoint. The article by the latter is a satisfactory brief presentation of our knowledge of decapsulation of the kidney, but we cannot help feeling that the author is over sanguine regarding the prospects of this mode of treatment. The paper by Rodman on Tumors of the Mammary Gland with special reference to their diagnosis, prognosis and treatment, although containing nothing original will repay the general practitioner for the reading. Another good surgical paper is that by Ross on the Principles of the Treatment of Fractures. In the section on obstetrics and gynecology there are two papers of common interest: One by Dorlan on The Female Perineum and Its Repair, another by Palmer on The Choice of Medicinal Agents for Topical Use in Gynecologic Practice. The remaining articles are, for the most part, of general therapeutic interest.

HEMORRHAGE IN THE NEWBORN.

H. McClanahan, Omaha (**Journal A. M. A.**, October 13), reports six cases of hemorrhage occurring spontaneously in the newborn, with histories; several cases of traumatic hemorrhage are also briefly reported. One of the spontaneous cases was a fatal hemorrhage from the lungs, which apparently is rather rare. He gives the principal facts in regard to hemorrhage of the newborn, its occurrence within the first few days after birth, its serious character in most forms, its apparent lack of any relation to hemophilia and the obscurity of its etiology. He thinks that it is probably due to some unknown specific cause producing a change in the blood vessels. In hemorrhages occurring later than the first ten days of life, he considers septic infection as the most likely factor. His experience, apparently, does not afford any special support to the theory of hereditary syphilis in these cases, though it is considered an important predisposing cause.

BENIGN CYSTIC EPITHELIOMA.

J. V. Shoemaker and L. Napoleon Boston, Philadelphia (**Journal A. M. A.**, October 13), report a case of this comparatively rare condition, of which they have been able to find records of twenty-four other cases in the literature. The growths occupied the right arm; the general condition was that of moderate secondary anemia, which improved under treatment. Microscopic examination made it evident that the neoplasms originated in the hair follicles and were examples of what has been described as tricho-epithelioma. Few cysts were present owing to the slight age of the tumors, they having existed but a few months. These benign tumors of the skin, the authors remark, have received but little attention from pathologists.

OAKLAND COLLEGE STUDENTS.

It is a pleasure to note that all of the students graduated from the Oakland College of Medicine and Surgery, recently, passed the examinations of the State Board most creditably. These were the first graduates from that institution and indicate that the promises of high standard, made by the faculty some four years ago when the College started, have been fully kept.

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EDITORIAL NOTES.

FOUR YEARS OF LIFE

In this present month of November, just four years ago, the first number of the CALIFORNIA STATE JOURNAL OF MEDICINE, your own journal, made its appearance. We ask you to go back, in your mind, these four years and recall what they have meant to all of us. The starting of the JOURNAL was entirely an experiment. The State Socity had just reorganized, after much discussion and no little difficulty, and the plan of basing membership upon, and having it carried with, membership in a county society was new and untried. Before reorganization, the State Society had about 300 members; immediately after the new plan was adopted and for some months, it had but few more. There were very few county societies in the State and most of those in existence were more theoretical than animate. Such was the condition of things when the JOURNAL was born. Naturally, it had few friends and a not inconsiderable number of enemies; would it live? Fortunately, the friends which it had were not only strong, but loyal, and they fought its fight, and your fight,—for it is your JOURNAL—nobly and well. Sacrifices were made during those first months of which you have never heard and will never know; but the JOURNAL lived and thrived; at first slowly, then more sturdily. The then secretary, Dr. Evans, held well defined views on the question of organization and worked hard for it and for the Society. The Council seconded his every effort, and that of the JOURNAL, and through a committee on organization was very active in prosecuting the formation and stimulation of county societies. Now, after four years, the State Society has a membership, through its affiliated societies, of close upon 2,000 physicians, and the JOURNAL is established on a sound business basis which not even the catastrophe of last April could destroy, though it demolished the inflammable superstructure. It would seem that, in numbers and in machinery and in means for expression and communication, we have, in the State Society, the fundamental elements for an organization.

ARE WE DOING ALL WE SHOULD.

But is the attitude of our profession toward the people in this State all that it should be—all that we should make it? Does the organization for the formation of which some of our members have worked so hard and so faithfully, really amount to what it should, by virtue of its numbers and the standing of its individual members? Are we doing all of that work which it is ours, by reason of our choice of life-calling, to do? We have numbers, machinery and means for publicity; but have we given an expression of that potential strength which should be in us? Are we working for the general public welfare, together, harmoniously, intelligently, as we should work, by virtue of that same potential strength which is, or should be, in us; or are we still acting as an incoherent mass of units, ignoring much of the duty we have placed upon ourselves? These are questions which each one of us should take home to himself, and with himself discuss them honestly and truthfully. Is the spirit of charity and brotherly love, of harmony and study, actuating the individual members of our many county societies? Is the young man or the new comer offered the right hand of fellowship and helped over the first rough places? Does the county society mean to you what it should mean, the place where all meet for the betterment and improvement of all, and the increasing of the sum total of medical knowledge; the place where prejudices are laid down and forgotten and mistaken enmities sloughed; the place where friendships are to be made and cemented through intercourse and understanding? Does it mean to you a power for the public good and a means for exercising that care for the public, in general health matters, and that protection from its sins of ignorance, which it is the duty of our profession to exercise?

GOOD ADVICE.

How little have we done in comparison with what we should do? Two years ago last April, at the meeting of the Society for 1904, the then President, in his address, placed before us very clearly some essential truths. Have we remembered them, or are they already forgotten?

> "For a doctor to neglect personal attention to civic and political problems is selfish and unjustifiable. His educational advantages, his specific knowledge of sanitary requirements, his trained judgment, his self-restraint and

poise in responsible situations, his familiarity with the vagaries of human nature, and the respect shown him by his fellow citizens, make him eminently qualified for executive work, and even leadership in civic affairs. The man of education, brains, and capability owes a certain part of his day to the community in which he lives, and to the associations with which his personal success and happiness are due. If he does not give it, he is not doing his full duty to mankind. The greater the advantages he possesses, the greater the call to esrve his fellow man. Few men, as a class, have a greater personal capacity than physicians. Therefore, few owe more to the State." *

Are we paying this, our debt to the commonwealth in which we live and in which we find "our personal success and happiness," honestly and fully and conscientiously? Are we devoting any portion of our time to an effort to educate the community to the fact that "pure water, sanitary plumbing, and compulsory vaccination, pay"? Two years ago we witnessed the exalting spectacle of a political demagogue and minature boss, at the solicitation of a small but compact group of fanatical, misguided, long-haired-and-short-brained enthusiasts, forcing through the legislature of our State a bill doing away with one of the laws which protect the people from their own ignorance and folly—the compulsory vaccination law.

POLITICS AND ASYLUMS.

Who is there so hardened that he can no longer feel the least sympathy for those unfortunate individuals who are incompetent to care for themselves and are a burden, when not a menace, to their fellows, through no fault of their own; the insane? Who know so well as physicians, the careful supervision and charitable, intelligent guiding and administration which this unfortunate class should receive? Who can appreciate so well as the members of our own profession the truth of the fact that it is not alone inhuman, it is a crime to permit political favoritism to jeapordize the lives or the comfort or the chance of cure of those who demand our support and our sympathy? Yet, quite recently, we were treated to the spectacle of political influence determining the appointment of a superintendent in one of the largest institutions of this kind in the State; of an old man, who had held the position for years, dexterously juggling it into the grasp of a "rank outsider" (passing by men, of not alone ability and experience, but of years of training), through local political affiliations. And, we dislike to acknowledge it even to ourselves, this was done with the knowledge and connivance of the chief executive of the State, himself a physician. Should we permit the people who are physically under our care, as a profession, to dwell in ignorance of the danger in allowing public institutions intended for the care of the sick or the incompetent, to be subject to politics; and political influence to be placed above professional ability? What institution of this class can be run to its best advantage if political pull rather than good professional service shall be the motive for promotion and advancement? And it is the people themselves who invariably pay the bill of costs for their own ignorance or delinquency. Physicians know these things; but do the people? "Men of lower ideals may deny that official dishonesty and public indecency sap the vigor of a village, town, or city, and inevitably lead not only to higher taxes, but to diminished personal safety."

* H. Bert. Ellis, Journal, May, 1904, page 140 et s.

SOME OF OUR DUTIES.

We do not have to search for civic and professional duties to perform, nor for ways in which the potential strength which is in us should be brought out and directed. The people need guiding, educating, protecting; and it is through our societies and the individual members of them, that this strength of our profession should be made manifest. We see charlatans on every hand, not injuring physicians, but deluding and robbing the sick and unfortunate and preying upon the defenseless. We see crooks robbing the child of its richest inheritance from the State—an education—by politically manipulated schools. Graft is but a concrete expression of that fundamental characteristic of human nature, a desire to get something for nothing. We see it on every hand, and we, as thoughtful physicians, realize that in every instance it is the poor man who pays the graft bill; is it not one portion of our duty to preach honesty and thrift as we pass through life? We see men, whose every instinct is but pure commercialism, grow rich from the brains and dollars of physicians whose training and instincts are for professionalism; should not our organizations act for the benefit of all and exert some of our potential strength in the curtailment of this fattening process? We see some of this class defrauding the public, through our unknowing assistance, by coining a few cents worth of drugs and a good many lies, into some wonderful nostrum. Is it not our duty to put a stop to this form of dishonesty by educating ourselves and the public and demanding the truth? We see criminally rich and convicted corporations determining the pittance which they will pay the members of our profession for our work. Is there not ample opportunity here for an exercise of our potential energy? We see, alas! some of our own members, foolishly trading away their professional heritage of self-respect and feeding upon a mess of contract pottage. Is there not room here for charitable education, for kindly persuasion and argument, for right precept and example, that he who has done a foolish thing may see his folly and abjure it?

DUTY OF ORGANIZATION.

As individuals we can do much for civic betterment if we will do each his duty to the community in which he lives, giving some portion of his time for the benefit, not alone of his fellow man, but incidentally of himself; for municipal and State honesty profit every citizen in the commonwealth. But we can

do more as an organized body of intelligent citizens working harmoniously for the common good than we may as individuals. Therefore, it is one of the most important of our duties as individuals to cultivate and make strong our societies—our organizations—and to develop to the uttermost the proper expression of that strength for the public good which we have concealed within us. Merely as individuals, divided, ununited, ignorant of each other's ideas or efforts and of what is being attempted, we could do little to protect the public from ignorant pretenders to medical knowledge. As a handful of more or less antagonistic individuals, it was by a chance that a law properly regulating the practice of medicine—a police law for the benefit of the people —was enacted; and as individuals, not exercising the potential strength of our profession, it has been and will be a contsant struggle to preserve that law from mutilation or emasculation; to say nothing of adding to it some necessary provisions or amending it as needful. As a united and actively organized profession, suggesting, educating, advising, in short, taking our rightful place in the legislative activity of the State, we can do much. But we must often work most unselfishly. Some times it will be our convenience or our pleasure which must yield to the public good; some times our own personal likes or dislikes must go; and again, a personal prejudice must be overcome. But you cannot get something for nothing. We cannot do our plain duty to ourselves and the public unless something in the way of time and personal effort is given by us. And the giving must be unselfish; without thought of personal gain.

BOARD OF EXAMINERS.

A member of the Board of Medical Examiners, in reporting to the Society last April, called attention to this subject in a most direct and forceful manner, and we bespeak your attention to his words, to be found elsewhere in this number. Certain amendments to our present law are required; can we venture to ask the legislature for them without the fear that, the door once opened for amendments, we can keep out any extraneous and undesirable ones? And further, the danger to the public from the rapidly growing number of partially educated osteopathic practitioners, is by no means a small matter. It has been demonstrated in two States that this danger can be averted by placing an osteopath upon the Board of Examiners and requiring all applicants to practice that particular cult to pass the same examinations in the fundamental sciences of anatomy, pathology, surgery, etc., as are demanded from the applicants of any of the other so-called "pathies." But has our organization exhibited enough strength to warrant the attempt to secure such a wise termination of what is a threatening public evil? That is the question asked by the member of the board in his report, and it is the question presenting to each one of us. We have the numbers, but have we the unanimity, the power to act concertedly in advising the legislators on this matter? It will still be some six weeks from the time this JOURNAL reaches you till the time when the legislature convenes; can you educate your representatives to the legislature on these matters in that length of time? Here again some personal feeling may have to be sacrificed to the public good; some of our members, men respected everywhere, have stated that it would be a disgrace to have an osteopath on the Board of Medical Examiners. Is that not placing personal feeling before the public good? This medical act is not for us but for the public; and if in some way that may not be pleasant to us, we can still further protect the ignorant public, is it not our duty to let personal feeling go, and do that thing which will be for the best interests of the public?

ORGANIZATION AND EDUCATION.

We also ask your careful reading of the address by Dr. Aiken before the San Joaquin Valley Society, breathing in every word, organization, fellowship, charity, brotherly love, and devotion to the public good as well as to professional betterment. Some societies there are, to be sure, which are good, live societies; whose meetings are frequent and well attended; whose members are active in the general welfare. But is this true of all? Do you yourself, as you read these words, think that you are doing all your duty to yourself and your community and your fellow physicians? Are you attending your county society as you should and participating in its work as it is your duty? How can we ask the public, or our legislators, to agree with us when we do not agree with each other and do not act jointly and as harmonious units of a great organization? And how can we act together if we do not come together and understand each other? Lack of interest in society work means lack of interest in professional advancement and individual improvement, and that means a poorer class of doctors than the patient is entitled to; and sooner or later the community will find it out. In union, peace, harmony and industry, are advancement, public health protection and public welfare; in apathy, antagonism and indifference, there is no professional progress, no guarding of the public against what we, as educated men, know to be frauds. The four years past have given us fair strength in numbers and in machinery. Now what shall we do? Shall we devote our energies to perfecting our strength, to bring out that vast fund of potential energy which is in us, to striving harmoniously for our own mental betterment and for the protection of the public, its education, its comfort and its safety, or shall we sit quietly in a state of "innocuous desuetude?" Shall we work hard, as individuals, each doing his best, to make more perfect and more enduring and more actively alive for good our county societies, or shall we be apathetic? It is all up to each individual one of us, for each must do his own share of the general work. No one man and no small set of men can do the work that is to be done. The strength of the American Medical Association and of the State Society, and their power for good, lie in the hands of the men who make up the county societies. Are there not enough things for us to do to make it an object

for each and every one of us to see that he leaves nothing undone that will tend to the strengthening and bettering of his county society? The duties placed before us are plain and clear cut; will we shoulder them or ignore them?

WORK OF THE BOARD OF MEDICAL EXAMINERS—REMARKS BY A MEMBER AT THE THIRTY-SIXTH ANNUAL MEETING OF THE STATE SOCIETY.

By DUDLEY TAIT, M. D., San Francisco.

Five years experience authorizes me to attribute the high per centage of failures during the past year to the presence of new examiners on the board. One year at least is required to familiarize oneself with the subject of examination, and the study of the law may necessitate an additional year or two. The new examiner, however lofty his purpose be, cannot prove an immediate success; he will almost invariably strive to display the extent of his own learning rather than test the applicant's knowledge. Complex, obscure, and catch questions characterize the work of the new examiner. As proof of this contention, I beg permission to cite the markings in the subject of obstetrics, held by a new member of the board. At the August examination, 67 out of 70 applicants failed; whereas at the corresponding examination the year previous, obstetrics being in the hands of an older examiner, not a single applicant failed. The disturbing element represented by the new examiner is apparently well recognized by the Homeopathic State Society, for the two Homeopathic members of the board have remained at their post since their election in 1901. Of the five regular pioneers, only one remains on the board.

Osteopathy—The price paid for our medical law was the Osteopathic Act, which authorizes its licentiates to practice osteopathy and minor surgery. In reality they practice medicine, surgery, obstetrics and the various specialties. The price was already too great in 1901. Today it seems fabulous. During the past five years 490 licenses have been granted by the Osteopathic Board, upon presentation of diplomas, i. e. without examination. California harbors three colleges of osteopathy. Illegal practitioners of medicine and applicants rejected by the medical board supply a considerable and constantly increasing percentage of osteopathic licentiates.

Admitting that we were, and are still, the victims of a corporation vastly superior in organization to the medical profession of this State, how can the evil be attenuated or controlled? First, health officers should be compelled to act in accordance with the decisions of the Attorney General of this state and refuse to accept death certificates signed by osteopaths. Second, by prosecuting osteopaths who practice medicine. Third, by an amendment to the Medical Act permitting the addition of an osteopathic member to the Board of Examiners and subjecting osteopathic applicants to an examination on all the subjects enumerated in the medical law, with the exception of materia medica and therapeutics. The last suggestion may be the most practical. Whether or not the humiliation incident to the official recognition of the osteopaths would be offset by the control of such practitioners, is for you to determine.

It behooves this society to consider most seriously the degree of organization necessary to rescind the many dubious and harassing features of the present medical law and to perfect that especially valuable section relating to unprofessional conduct. Organization, as ideally exemplified in the work of the indefatigable secretary of this Society, is the key note to success. Nothing can be accomplished by doubting Thomases and inconvincible Catalines. A close study of the records of the Board of Examiners prior to 1901, when the present medical law went into effect, discloses the astonishing fact that the law was never enforced in its entirety. Those to whom the enforcement of said law was intrusted knew not the vast importance and scope of certain of its sections relating to the standard of medical schools. A similar condition of inexcusable ignorance and inactivity prevailed under the new law for a period of over two years. During this period complaints and protests were unknown; supreme harmony existed in the profession. Then suddenly the Association standard was flashed before the board, inaugurating a new era in the history of medical legislation of this state. The first note of the death knell of fraud in medical colleges was thus sounded. Harmony was replaced by complaints from applicants; by protests from colleges. But the board possesses no discretionary powers; to all it replied *dura lex sed lex*. Today harmony again prevails in the relations of the board, the applicants, and the medical schools. The numerous irregularities of matriculation and graduation enumerated to you a year ago have not been repeated. All the California schools are apparently obeying both the spirit and the letter of the law.

The board's investigation of preliminary educational requirements and diplomas extends to all applications. The list of applications rejected during the past year comprises one California and six Eastern diplomas. Of what avail is the medical law on the statute books if we continue to ignore its essential features and to look nonchalantly to the Board of Examiners for the enforcement of punitive measures which it is not authorized by law to enforce? I refer to the prosecution of illegal practitioners. County societies, practitioners, the public, all address their complaints to the board. All are apparently oblivious of the fact that the board cannot institute such proceedings; it has consequently never caused the arrest or prosecution of a single illegal practitioner. Three years ago, when it became imperative to test the law in the higher courts, a large number of arrests were made, not by the board but by one of its officers acting in the capacity of a citizen. It was hoped that the experience thus laboriously gained would be utilized by the county societies; but up to the present time their efforts have been either desultory or without practical result. This general apathy regarding the police measure of the medical law, prompts me in submitting for your consideration the advisability of

amending the medical act, making it the duty of the board to prosecute all cases of illegal practice of medicine, the fines collected to constitute a special fund for such prosecutions. A similar clause exists and works satisfactorily in the acts regulating the practice of dentistry and pharmacy.

Reciprocity—Nothing further has been done by the California board in the matter of interstate reciprocity. Our attempts to enter upon reciprocal relations with the District of Columbia were annuled by the passage of the standard-lowering Gallinger bill. You may have recognized in the author of said law the famed opponent of the pure food bill. We believe the equitable solution of the perplexing problem of interstate reciprocity to be the unification of standards through the adoption of the requirements of the Association of American Medical Colleges by the different state legislatures. However, there is apparently no crying demand in this state for reciprocity, and in this regard I would respectfully remind those who decry reciprocity but advocate informal or farcical state examinations, that such a policy would lead to reciprocity and to a reciprocity founded on injustice. During the past five years five California graduates applied for certificates in Eastern and mid-Western states, which furnished California during the same period 160 applicants.

Revocation of Licenses.—The board has devoted a vast amount of time to the enforcement of that part of the law relating to unprofessional conduct and today we report the revocation of the licenses of three notorious advertising abortionists—Josslyn, Meadows, alias Weston, and McGregor Wilson, all of San Francisco. At the next meeting of the board, two more licenses may be revoked for similar reasons. We point with pride to this record unequalled by any other state board. A word now regarding the standard of the requirements. The legal standard in this state is that of the Association of American Medical Colleges for the years of the applicant's matriculation and graduation. We hear it bruited that our standard is constantly being raised. Such a statement is not founded on fact. Our standard has been lowered during the past year, and to our deep chagrin we found the legal preliminary educational requirements lower than those exacted six years ago under the law. This is not the first time that California has taken a retrograde step in educational standards.

During the past year through an oversight in the constitution of the Association of American Medical Colleges certificates from quiz masters were made equivalent to diplomas from high schools. The board has proof of the existence of a mercenary and active traffic in said certificates, whereby numerous thoroughly illiterate students were entitled to matriculate at and graduate from some of the schools of this city. The board was powerless to check this undisguised, nefarious, standard-lowering scheme. But today we bring two documents from the Association of American Medical Colleges, showing a radical change in the legal preliminary educational requirements of this state. (See letters infra.) Thus politics and its dire consequences are eliminated from the medical schools of California.

No law is self operative. Individual efforts are the most cogent factor in advancing the cause of medical legislation. My esteemed colleagues will tell you to what extent the position of board member constitutes a pastime, but I desire to state categorically, although not regretfully, that the work, the dreary, enemy-making, practice-losing work, is done by the members residing here in San Francisco. Apart from the consciousness of duty performed, our reward is the privilege, the honor, of appearing before you with a message of truth, urging that the work go onwards and go upwards.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

Columbus, Ohio, March 21, 1906.

Dr. Dudley Tait,
San Francisco, Cal.

Dear Doctor:

By unanimous consent of thirty-five colleges represented at the association meeting in Pittsburg the amendment to Article III., Section 1 (d), suggested by you was adopted. It now reads: "Certificates from reputable instructors recognized by the State Board of Medical Examiners duly authorized by law, or by the Superintendent of Public Instruction *in states having no Examiinng Board,* may be accepted in lieu of any part of this examination."

Section II. This examination must be conducted by or under the authority of the Board of Examination or the Superintendent of Public Instruction of the city or state in which the college is located, as provided for in Article III., Section I. (d).

We hope this will give your board absolute authority to govern entrance examinations. There are only a few states that have no examining board. In these we have to make some provisions for the examination of prospective students.

Very truly,

W. J. MEANS,
Chm. Jud. Coun.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

Chicago, March 28, 1906.

Dr. Dudley Tait,
San Francisco, Cal.

My dear Doctor:—

Your favor of the 24th inst. received. In consonance with a suggestion made by your board, the association at its meeting in Pittsburg unanimously amended subsection (d) section one, article III, and section two, article III as per the slip contained in the enclosed constitution to which I have set the official seal of the association so that you can file the constitution as a matter of record.

The association feels itself indebted to you for calling attention to this matter and stands ready at all times to be of such assistance to you as is possible. A copy of the reprint of our transactions will be forwarded to the members of your board as soon as published.

Very sincerely yours,

FRED C. ZAPFFE.
Secretary.

THOROUGH ORGANIZATION THE PRESENT NEED OF THE MEDICAL PROFESSION.*

By GEO. H. AITKIN, M. D., Fresno.

The old adage, "In union is strength," was never better exemplified than in the great industrial and commercial undertakings of the day. Organization and co-operation have become synonymous with progress and reform. They dominate every successful enterprise, and should be the head and front of all business relations—the essential factors in the ultimate issue of any great project—the means to a desired end. By them great armies are moved as a unit, and great victories won. By them the entire commerce of the nation is brought within the grasp of organized capital. By them industrial unions and combinations of labor have been formed, which will soon defy all the efforts of corporate power to disrupt. By them, the great religious denominations have become an immense power for good in the spread of the Gospel and teachings of Christianity throughout the entire uinverse.

For the medical profession, organization and cooperation are no less beneficial and imperative, but partly from modesty and partly from indifference, we have been tardy in taking advantage of these powerful forces, so quickly recognized and utilized by industrial and commercial bodies. That we are now awakening to the importance of organized medical activity, for professional advancement and public good, we have but to note what has been accomplished along these lines in years just past. For four years the growth of medical societies throughout the United States has been phenomenal; and there has been a personal interest manifested, which has never before been equalled in the history of the nation. It is estimated that the enrolled membership throughout the country now number not less than 45,000. The membership of the A. M. A. is something in excess of 20,000. It is only a few years since our own State Society numbered but a few scattering hundreds of indifferent inactive members, while now its enrollment approximates 1,800—a rapid increase in numbers, largely due to the personal efforts of a few organizers, very competent in forming county societies, making them the unit which carried with it membership in the State and A. M. A., the latter feature having done more to harmonize and interest the medical profession than all other influences combined.

Consider for a moment what this means! With an organization of nearly 50,000 of the best talent in the land banded together, what a tremendous influence for public good and professional advancement! This large gain in numbers, and the great good accomplished in the past, is only an earnest of what may be done in the future with united effort; but to this end every physician in the land must feel his individual responsibility and take an active part in this important constructive work. If we are to attain to that measure of success to which we are justly entitled, if we are to secure effective medical legislation, a just recognition of medical standards of the army and navy in the halls of Congress, if we are ever to have a medical officer in the cabinet and retain the confidence and good-will of the public, these will only come through organization, united effort and harmony in the medical profession.

Affiliation in the county society is of first importance. To further this end, every reputable physician in the land should have his name enrolled in the county society in which he lives, and not only be enrolled, but become an active working factor in the same. The time is near at hand, if not already in the present, when the physician will find it not only essential to his social position and material welfare, but a necessary requirement for his professional standing, that he be an honorable member of the medical societies to which his brother practitioners are entitled. Especially is this true of the young practitioner, who will need the sympathy, encouragement, council and good-will of those older and more experienced in the service. Nearly all insurance companies, corporations, and other large organizations of trust and profit, take note very quickly whether men seeking positions with them are or are not, members of those medical socities to which they should belong. It is a professional passport and a guarantee of our good standing with the medical profession, and if we have it not, there are grave and just suspicions of our unworthiness.

As you will note, I have made reservations as regards who may be entitled to membership in our medical societies. My own convictions are, and I do not hesitate to assert them, that the physician who is habitually unethical, inherently dishonest and dishonorable with his brother practitioner and fellow citizens, vulgar and ungentlemanly in his conduct, has no rightful claim to fellowship in any medical society. With these disqualifications, the medical society can do such a man little good, while it is more than probable that he would do it much harm. Membership in a medical society will not reform such men; their reformation should come first. He should be made to feel that it means something to be banded together in a profession whose sacred obligations are unsullied honor and the saving of human life; that it means something to have his name enrolled among the heroes and martyrs of medical science.

And as the county society is the portal through which all must pass, and as membership in these entitles him to affiliation in the State and American Medical Association, the highest and best in the land, it is here that the personnel and honor of the profession should be properly safeguarded.

I also note with much regret, the meager attendance and lack of interest in our district society meetings. Are we not losing some of our old time enthusiasm and real love for the practice of medicine? Are we forgetting there are other assets of far more value than dollars and cents, and making the money standard too largely the measure of professional success? We have in the valley nearly three hundred physicians in good standing who should rightfully belong to this society, enrolled as active members, yet there are not to exceed one

* President's address, San Joaquin Valley Med. Soc.

hundred. Instead of an attendance of thirty to fifty as at present, there should be from one hundred to one hundred and fifty at each meeting. Observation will teach you that it is frequently our busiest and most successful practitioners who are found in regular attendance at our medical societies and conventions. Experience has taught them how profitable it is to be there, for they get greater inspiration for their work, the mental horizon is broadened, the getting in touch with one another through this personal contact and exchange of ideas helps to do away with the petty jealousies, dissensions and bickerings which have been the curse of our profession in the past. They become not only better physicians for being there, but better men and better citizens.

No matter how remote, obscure or poor the physician may be, he cannot afford to stand aloof from his brother practitioners, and fail to attend these meetings. To do so, from the mistaken idea that he cannot afford the time required or expense incurred in attendance, is to impoverish himself a hundred fold. It is the everlasting grind and narrow routine of daily life that kills, and he who plods along from year to year, without change, rest and recreation, or strives to run the race alone, does by this very isolation tend to become narrow, warped and soured, disgusted with himself, his profession and the whole world.

Finally, if we come together to-day, with the purely selfish purpose of seeing, hearing and learning, without a thought of reciprocity in giving, building and constructing, we are failing in the highest of our obligations and opportunities. Let us begin the work before us with a broadminded tolerance for differences of opinion, in a spirit of charity, good fellowship and brotherly love, with only this end in view, the uplifting of humanity and the advancement of our profession.

PROPRIETARY MEDICINES.*

By A. JACOBI, M. D., LL. D., New York.

Goethe once said that the most interesting book that could be written would be a treatise on human errors. In that book, large like a library, the history of quackery—well meant or deceitful—would fill a large place. The distrust of medicine and its powers is as old as the world, for not many ever knew or cared to appreciate what medical science or art is capable or not of accomplishing, or should be held responsible for. Besides, the more uncultured or uncontrolled the human intellect the greater is the predominance of mysticism. In Greece quackery was rife and Aristophanes made it the subject of ridicule. The elder Cato, who advised the use of cabbage against all sorts of disease and employed witchcraft and incantations for luxations, demanded the expulsion from Rome of the Greek physicians. The iatromechanics, who taught the direct interdependence of stars and man and prescribed pills compounded during the conjunction of Jupiter and Venus, and the mediaeval priests who cured with prayers and processions and auto da fes, must surely have met with failures and driven the sick somewhere else. Even the specialists among the saints, St. Anna the ophthalmologist, St. Judas the doctor for cough, St. Valentine for epilepsy, St. Rochus the veterinarian, may have made mistakes and proved incompetent.

Nor was the public always edified by the doctors in other resptcts. Hippocrates complains bitterly of the contests of doctors among each other. More than 2,000 years later Peter Frank thought and advised seriously that the only way to procure an orderly consultation was to call in the police. The maltreatment they were exposed to in the Middle Ages, the contempt in which wounds and ulcers were held, so that the medical faculty of Paris about 1300 commited their candidates by oath not to practice surgery; the barbarous methods of treatment by fire for the dangerous body fluids to which everything was attributed, and afterward the nauseating draughts with which the sick were punished until no better man than Hahnemann tried to redeem them—all that did not contribute to add to the dignity of the profession and to the confidence of the public. All that drove the masses into the arms of the sectarians and the quacks.

Then followed the era of scientific medicine, little more than half a century ago. It was built up on anatomy and physiology and was studied on biologic lines. We should have suspected that the darkness of quackery would disappear before the new light. On the contrary, it has grown in geometric proportions until the accumuled ignorance of quacks and fakers has become a power in every land. The Germans, who like to style themselves the nation of thinkers, have more quacks than any other people. Indeed, Saxony and Bavaria have one quack to two regular physicians; Berlin itself has two to nine. It is in Berlin that 29 per cent of the men among the quacks, including clergymen, workmen, stewards, bathhouse keepers, shepherds and university students —and 14.4 per cent of the women had, before embarking in the practice of doing the sick people, collided with the law courts on account of theft, forgery and sexual crime. It is Berlin that has a judge who, in discharging one of that ilk, said the man deserved the greatest confidence, for he was in possession of very good prescriptions obtained from the servant of a famous dermatologist.

Scientific medicine, as developed by the Vienna school more than fifty years ago, ended in nihilism. Patients, however, would not long be satisfied with being merely percussed and auscultated and autopsied. They had the pardonable wish to be healed and cured. But the only chance they were given was to serve as scientific material. With that they were not pleased and ran off to fill the offices and the coffers of the quacks. Then, after Skoda and Rokitansky, came Virchow, the great man of the century, the enemy of mysticism and obscurantism, the daily discoverer of new facts and new methods in pathologic anatomy, the founder of the cell theory, the great anthropologist and hygienist, the assiduous therapeutist of the individual man and of society,

* From the Journal A. M. A.

the very realization of what Aristotle meant by his "politician," that is, the philosophical and scientific statesman. The great mistake of his life resulted from his democratic confidence in the people. His idealism moved him to believe that the people would instinctively distinguish between the physician and the quack; it was on his advice that the Prussian parliament opened the doors to the fakers and reduced the medical profession to a trade. That was in 1869. He learned too late that people do not know who is who in medicine. People are not even taught by lectures or pamphlets or books, which are superfluous to the physician and not read by the masses. It is their nature to prefer to be in opposition at all hazards. They would rather pay hundreds of millions annually for pseudo-doctrines as displayed in books and journals and for proprietary medicines.

Do you care to know about how many there are? Up to October 12, 1900, there were United States patents for 321 disinfectants, 30 extracts, 48 hair dyes and tonics, 180 insecticides, 376 internal remedies, 56 plasters, 371 topical remedies, 78 veterinary medicines. There were trademarks for drugs and chemicals, 319; medical compounds, 5,794, which increase at the rate of 250 annually. The State Board of Health of Massachusetts has examined about sixty proprietaries for their per centage of alcohol, according to the board's report Howe's Arabian Tonic, "not a rum drink," contains 13.2 per cent.; Parker's Tonic, "purely vegetable," recommended for the cure of inebriates, 41.6 per cent.; Schenck's Seaweed Tonic, "entirely harmless," 19.5 per cent.; Copp's White Mountain Bitters, "not an alcoholic beverage," 6 per cent.; Greene's Nervura, 17.2 per cent.; Hoofland's German Bitters, "entirely vegetable and free from alcoholic stimulants," 25.6 per cent.; Kaufman's Sulphur Bitters, "contains no alcohol," 20.5 per cent. and no sulphur; Whiskol, "a non-intoxicating stimulant," 28.2 per cent.; Golden's Liquid Beef Tonic, "for treatment of alcohol habit," 26.5 per cent.; Hood's Sarsaparilla, 18.8 per cent.; Peruna, 28.59 per cent.; Lydia Pinkham's Vegetable Compound, 20.61 per cent.; Kilmer's Swamp-Root, 7.32 per cent.

We, the doctors, like Virchow, our great master, are responsible for a great deal of this injury that is done to the people. For a baby it is we that prescribe artificial foods, the composition of which we do not know. What Nature gives us at a low price—milk, cereals, salt and sugar—we know and therefore underestimate. Nature is democratic and offers the best she has for the rich and the poor alike. We covet what is unknown and high-priced. We prescribe nostrums of known or unknown composition; the latter is not far from criminal, the first would be excusable but for two reasons. One of them is that the manufacturer looks for the good that he can do to himself, and that factories are not run for your benefit; the second is that an unalterable formula, though its composition may correspond with the label, should not be used by the physician who deals with a variety of cases, ages and circumstances. I do not blame a layman who indulges in self-medication after being treated by his physician with a remedy he sees advertised in the glowing headlines of his daily paper. I have known at least one of the infant foods that was advertised and sold for twenty years, and then publicly discarded by the manufacturer, who claimed to have at last found the proper—probably cheaper—compound. The layman must be excused for refusing to pay a doctor in addition to the advertising expenses of the tradesman.

We physicians do more. We take medical journals that advertise nostrums, that print 'reading notices" of proprietary medicines, old and new; that sell pages of their issue to the trade; that print eulogies of factory products in the shape of "original articles;" that alternate their medical and advertising pages. When I spoke of this abomination before the International Medical Congress of Paris in 1900 a Western medical journal of that style asked the appropriate question: "Who, after all, is this Dr. Jacobi? If it had not been for us, the journals, he would have lived and died in obscurity."

Thus it is that even the mind of the medical man is gradually poisoned. What these sheets do not, perhaps, accomplish fully, the glib agent—sometimes an M. D., who gains access to you by the card he sends in to you—will complete. He dumps his wares—his blotters, ink-stands, paper-knives, pencils, blank books and almanacs—on your table, either personally or through the post office. Well, he can afford it. For the poisonous anilin preparation with sodium bicarbonate which he baptizes with a hybrid name and which is prescribed by thousands of us yields him a thousand per cent. of profit. And how? It has been given admission to what should be your sacred medical book, the United States Pharmacopeia. That is why you find thousands of doctors and hundreds of apothecary shops with stacks of advertising sheets and quackish booklets, but without a United States Pharmacopeia or the American Pharmaceutical Association's formulary. That is why a friend found the expensive prescription of a prominent New York practitioner which read: "Remedium Spontaneum, Radway," and which meant no less than merely cheap "Radway's Ready Relief." The same friend took the trouble of examining 50,000 prescriptions compounded in a number of drug stores. Between 1850 and 1873 he met on the prescriptions of physicians no nostrums and no machine-made tablets; in 1874, 1 in 1,500; between 1875 and 1880, 2 per cent. of them; 1880-1890, 5 per cent.; 1895, 12 per cent.; 1898, 15 per cent.; 1902-1903, from 20 to 25 per cent. In a large drug store, one of the gaudy ones, to which the prescriptions of our fashionable doctors are sent, I was assured that 70 per cent of the prescriptions sent in by reputable physicians contained either nostrums pure and simple or as a part of a compound.

Perhaps it would lead too far to examine all the reasons for that demoralization. But one of them should be generally known and appreciated, which is that there are very few medical schools a graduate will leave, diploma in hand, with the knowledge and practice of writing a prescription. Our medical

schools neglect their duties by thus omitting to teach the art of medicine in combination with what is exclusively and pompously called "science." Let the schools remember what every one of us general practitioners can tell them, that medicine means both science and art. I have here the prescription, dated April 14, 1906, which was given to a patient, who swallowed the stuff, by the professor of pharmacology and therapeutics in one of the great universities between the Atlantic and the Mississippi—very far from the Mississippi—which is a mixture of scientific and queer language, viz., "Bili-salol"—what is bili-solol in the Pharmacopeia?—"0.25, dentur tales doses No. C, three to five pills after meals three times a day."

If there is so much proprietary medicine prescribed, and so much quackery, clear your own skirts, professors and doctors. The quacks and manufacturers smile at our unctuous words and unclean hands.

GENERAL ENTEROPTOSIS.*

By J. HENRY BARBAT, Ph. G., M. D., San Francisco.

My reason for bringing this subject before you is that it is being overlooked in a large proportion of cases, and thousands of women are leading a miserable existence, and suffering untold torture, because their disease has been improperly diagnosed, and therefore improperly treated. By the term "general enteroptosis" or Glenard's disease, or splanchnoptosis, we refer to a condition of the abdominal contents characterized by a relaxation and lengthening of the peritoneal supports, allowing the viscera to descend below their natural position, especially when the body is upright. While ptoses of the various organs had been recognized by various authors for many years previous, it is to Glenard that we must give credit for having first described, in 1885, the symptom-complex of this condition and devised means to ameliorate the misery of patients suffering from this disorder. His observations have been confirmed by all who have followed this line of work, and the importance of the subject can be understood when we appreciate the fact that from 10 to 25 per cent. of women applying to the gynecologist for treatment, are suffering from this disease.

Women are afflicted about ten times as often as men. Age has no bearing, except that it is uncommon to find a general enteroptosis in children, the kidney alone being displaced. No reference is made to congenital floating kidney. The etiologic factors may be divided as follows:

Hereditary and constitutional.

P. Mathes says that "enteroptosis is a constitutional and hereditary anomaly of the abdominal organs consisting of weakness and absence of vital energy in the whole body. The ptoses are due to insufficiency of the hypoplastic sunken thorax, and secondarily to the weakness of the abdominal walls. The enteroptotic habit is identical with the phthisical habit."

Developmental: In these cases we find girls about the age of puberty assuming a new form of dress, necessitating corsets, which as a rule compress the waist; and with the weight of the clothes, causes a dragging on the viscera in the lower abdomen producing lengthening of the peritoneal supports.

Post partum and postoperative types: After parturition in women in whom the abdominal wall has been overdistended, we find that the recti muscles have been either separated, producing a diastasis, or else have been so stretched that involution has not taken place, allowing the lower portion of the abdomen to balloon out, inviting the descent of the viscera. This is further increased if the patient wears anything tight about the waist line. The same conditions will sometimes obtain after the removal of large abdominal tumors, especially if the patient's general health has been seriously compromised.

Traumatic: Sudden, violent or infrequent exercises, such as falls, jumping, lifting, dancing, horseback riding, coughing, etc., may start some of the organs, and once started the ptosis will gradually become worse.

Nutritional: In which the abdominal wall has been weakened by long continued sickness, or in which the abdominal fat has been increased and diminished frequently.

Renal and pelvic congestion during menstruation, by increasing very materially the weight of the organs, has a tendency to produce ptoses.

The organs are involved in the following order of frequency: Right kidney, transverse colon, stomach, left kidney, liver, spleen. The right kidney is found movable ten times as often as the left, and both kidneys in 15 per cent of all cases.

The right kidney is most often displaced; first, on account of the relation of the liver which is over it, and whose weight and size may vary at different times in the same individual.

Second, the ascending colon, at the hepatic flexure is more movable than the descending colon and splenic flexure, and is a factor in the production of nephroptosis.

Third, the right renal artery is longer than the left, and therefore allows more motion in the right kidney.

Fourth, the suprarenal vein in the right side empties into the vena cava inferior, while on the left side the suprarenal vein joins the renal, affording some support to the left kidney.

Fifth, the second and third portions of the duodenum press on the right kidney.

The transverse colon often begins its descent by being weighed down with fecal matters, which are not removed with sufficient frequency, and ptosis of the transverse colon is a factor in the production of nephroptosis and gastroptosis. Hepatoptosis, while an occasional symptom in general enteroptosis, is also often found alone, and in these cases is due as a rule to trauma. The same may be said of splenoptosis.

The majority of patients suffering from enteroptosis who apply to us for relief, are not aware of the fact that their abdominal organs are displaced and

* Read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

usually come complaining of some disturbance of the digestive function associated with an ever constant fatigue and misery, which is relieved only by lying down. When we consider the number of organs involved, we can readily appreciate the fact that the symptoms will differ in different patients according to the causation and amount of displacement of each organ, and the effect on the adjacent organs, and also the effect of the whole malady on the nervous system.

In most cases we find the symptoms due to *movable kidney* attracting the attention of the patient, manifested by pain in the loin coming on after getting out of bed, and increasing materially on exertion, or the placing of any garment making pressure at the waist line.

Dietl's crises, usually begin with nausea and vomiting, followed by headache, pain in the hypochondrium radiating back to the loin, a sense of suffocation and an irresistible desire to remove the clothing and lie down. Intermittent hydronephrosis, by flexion or torsion of the ureter; icterus, by compression of the common duct; gastrectasis, by compression and angulation of the duodenum; hematuria, by angulation of the renal vein, and consequent acute congestion, are all symptoms referable to movable kidney.

Ptosis of the stomach and intestines produces indigestion with fermentation, dilatation of the stomach, gastralgia, retention of food due to lack of muscular tone of the stomach, constipation, autointoxication from the retained feces, mucomembranous colitis and neurasthenia.

Many authors consider that general enteroptosis and neurasthenia are synonymous; others maintain that they are entirely separate disorders. But my conclusions are, that a large number of people have neurasthenia whose abdominal organs are not displaced, and many people have enteroptosis without neurasthenia, and I find that if patients are allowed to suffer from the effects of general enteroptosis for a sufficient length of time, they will become victims of neurasthenia.

Associated with ptoses of the abdominal organs, we must consider the displacement of the pelvic and thoracic organs. The symptom complex of retrodeviations or prolapse of the uterus and enteroptosis are similar, and a ptosis of one organ should lead us to an examination of all the others. Downward displacement of the heart has been noted occasionally, due to traction on the diaphragm by the liver and stomach, and causing more or less serious disturbance of the circulation and heart action.

In the majority of cases the physical examination of enteroptotics is easy because of the relaxed abdominal walls, but occasionally we will find considerable fat still present and it will be rather difficult to feel a movable kidney or determine the position of the stomach and colon. It is best in all cases to go through a routine examination.

After removing the corset and loosening the waistbands the patient is placed in a semirecumbent position, so as to relax the abdominal muscles, and is made to take several deep breaths; the examining hands are placed, one on the loin and the other just below the ribs in front. Just as the patient has taken a deep inspiration, the fingers are brought together as close up under the ribs as possible, and if the kidney is movable it will be prevented from receding and may be palpated and the amount of motility determined. Both kidneys should always be examined. I have had a few cases in which a movable kidney could not be dislodged on certain occasions; I believe this to be due to temporarily increased abdominal tension from gas, or to the patient's inability to properly relax the abdominal muscles.

The borders of the liver and spleen should be mapped out to determine their size. The position of the uterus is then ascertained. The patient is now placed in a standing or sitting position, and the organs again examined to determine the amount of displacement. The position of the heart is also noted. Then stand behind the patient and place the hands on the lower part of the abdomen, lift it up and hold it for a few seconds, and you will find that it immediately relieves the drag which these patients always feel. Let go suddenly, and they will appreciate the benefit which may be obtained by wearing a proper support.

The question which interests the patient is "can I be cured?" Unfortunately we cannot answer in the affirmative, but can give reasonable assurance that we can restore the individual to a fair condition of health and comfort, which will obtain just so long as our directions are accurately carried out. We should also warn all patients with enteroptosis that any carelessness in applying and wearing supporting appliances will be followed by crises which may be more or less serious, and which will oftimes require several weeks rest in bed to remedy, or make an operation imperative. Medical treatment *alone* is of no more value in enteroptosis than it would be in the dislocation of any joint, and I find that most of the patients who come to me with this disease have had all manner of medicine for their stomach and bowels without the slightest permanent relief. It is of course essential in almost all cases to prescribe tonics and laxatives at first, to stir up the partially paralyzed organs, but if these measures are not supplemented by mechanical support of some kind, we will fail absolutely in relieving our patient's condition. Hydriatic measures, in combination with properly regulated exercises, especially in recent cases are to be strongly recommended, and will sometimes result in curing the patient by toning up the abdominal wall and thereby increasing the intra-abdominal pressure.

As a rule however we have to rely on mechanical methods to remedy mechanical diseases, and I will first take up operative proceedures and their application to ptoses of the abdominal viscera. I find as a rule, that when the organs are easily replacable and remain in position with the patient in the dorsal decubitus, no operation is necessary, but if they do not remain placed, operative measures are essential.

The organ to which most attention has been paid has been the right kidney, and in about 10% of cases it will be found necessary to fix it my means of one of the various operations of nephropexy. The

one which I prefer, and which I have been using for the past two years with perfect satisfaction, is as follows:

After making the usual oblique incision, the kidney is thoroughly loosened from all its attachments, especially on its anterior surface, which will often be found closely adherent to the peritoneum and ascending colon. If this separation is not accomplished properly, no benefit will result, and the patient will complain of more pain after than before the operation. Sufficient perirenal fat must be removed from the renal fossa to permit the kidney to come in direct contact with the quadratus lumborum. The kidney capsule is then incised below the level of the hilum, horizontally, and the lower portion detached from the kidney for about half an inch. Then by means of 4 or 5 interrupted formalin catgut sutures, the loosened edge of the capsule is attached to the upper part of the quadratus muscle, or in cases in which the kidney can be placed entirely above the twelfth rib, the skin incision is prolonged upward and the sutures are passed from below upward keeping the needle in close contact with the twelfth rib, and making it emerge between the eleventh and tewlfth ribs. The sutures must all be placed before tying, and it will be found that the kidney will be drawn up so that its lower pole projects only slightly below the lower border of the twelfth rib. By this method the kidney is supported in a cup or sling consisting of its own capsule, and if the peritoneal attachments have been properly separated, there is very little tension on the stitches, and very little pain following the operation. The fasciæ and the skin are closed in the usual manner. No danger need be apprehended in passing the sutures between the eleventh and twelfth ribs, if the needle is made to hug the rib, because even if the pleura should come down lower than usual, it would not be punctured but would be pushed up when the needle emerged on the outside. At the same time I do not believe that any serious result would follow if the pleura were punctured at that point, because the tying of the sutures would effectually close the stitch wounds. If no nerve trunks have been cut or compressed by sutures, comparatively little pain will be experienced and the patient will be about in two weeks.

Operations on all other ptoses require opening of the abdominal cavity. In some cases we will find that a movable liver is causing traction on the stomach and duodenum and also kinking the common or cystic duct, and demands operative measures to fix it in proper position. I have found that occasionally there is a rotation rather than a uniform prolapse, the right lobe projecting down below the umbilicus to such an extent in one case that the lower border of the liver was almost vertical. It is a difficult matter to place sutures which will effectually support an organ as heavy as the liver, and the most satisfactory method which I have found is one devised by Ellsworth Elliott Jr., in which he sutures the round ligament of the liver to the parietal peritoneum, making a sling. This must be supplemented, in cases in which the organ is rotated, by some other fixative measure or no benefit will obtain, and I have in one case of rotated liver caused adhesions between the liver and the diaphram, by rubbing the surfaces with a gauze sponge and then inserting a few sutures to keep the liver in contact with the diaphram. I have on two occasions, in cases of traumatic hepatoptpsis, applied three very heavy catgut sutures directly through the liver substance and the abnominal parietes. The results in these cases have been very good, but there is room for better technic in hepatoptosis.

For gastrophtosis and coloptosis, the stomach and transverse colon have been sutured to the abdominal wall; the omemtum has been used as a sling for the stomach by sewing it to the abdominal parietes, but the results have been far from satisfactory. When gastroptosis is associated with dilatation, gastroplication with posterior gastroenterostromy will unquestionably give the best results, and cases are reported in which relief was obtained only after both operations had been done. Wandering spleen has been treated, in the majority of cases where it has caused trouble, by extirpation, but I do not believe that this should be done unless the organ is diseased or very much enlarged, as it can be fixed to the abdominal wall by roughening the corresponding surfaces and using one or more heavy catgut sutures through the parenchyma of the organ and the abdominal wall.

Ptoses of the pelvic organs require operation more often than those of the abdominal cavity, on account of the impracticability of properly supporting them with mechanical devises. Retrodisplacements of the uterus with the accompanying ptosis of the adnexa, require as a rule an operative proceedure for their correction. Where feasible, shortening of the relaxed supports gives the most satisfactory result and I have a preference for intra-abdominal shortening of the round ligaments in cases of retroflexion, supplemented by shortening of the sacrouterine ligaments in retroversion. Prolapsus uteri is best remedied by ventrofixation and colporrhaphy. When the relaxation of the abdominal walls is due to a diastasis of the recti muscles, it becomes imperative to correct the condition by operation. Any one or all of these fixative operations may be necessary; but it is rare that more than one of the abdominal organs will resist the correct support of the abdominal wall.

I make it an invariable rule to postpone operation, except on the pelvic organs, until a thorough trial has been given the abdominal supporter; then, if it is found that one or more organs resist this means of support, I advise operation. It is to the supporting corset that I especially desire to call your attention. Ever since the publication by Ernest A. Gallant of New York, of his excellent article on Glenard's disease, and his advocacy of correct corsets to remedy the condition, I have been working in the same direction, and with the help of my corset maker have succeeded in relieving a large number of enteroptotics.

In a small proportion of cases, especially if the disease has not been of long duration, the ordinary straight front corset reaching down to the pubes in front, will be found sufficient to support the abdominal contents; but in the majority of cases it

will be found necessary to have the corsets made to order, because if they do not fit accurately they will do more harm than good. I can not do better than to quote Dr. Gallant as to the method of measuring and fitting the supporting corset. "Before attempting to measure a woman for a corset, the intestinal tract should be thoroughly emptied by the administration of laxatives for several days, and immediately preceeded by urination. Having loosened all her clothing, and removed her corset, place the patient on a firm couch or table, head resting on a pillow, legs extended, and secure the following measurements: The dorsal position is absolutely essential. Tie a piece of rope or bandage around the body to mark the waist line. The measurements must be taken next the skin or outside the undervest. Draw the tape snugly, not tightly.

1. Circumference of chest under axillæ? inches.
2. Circumference of bust over most prominent portion of breasts? inches.
3. Circumference at waist line? inches.
4. Circumference of hips at level of anterior superior spines? inches.
5. Circumference of hips over great trochanters? inches.
6. Length, waist line to iliac crest? inches.
7. Length, waist line to top of corset at height patient desires? inches.
8. Length waist line to auxiliary fold? inches.
9. Length waist line to top of symphysis pubis, to median line? inches.
10. Distance between anterior superior spines? inches.
11. Breasts are small, medium, large, flat, rounded, pendulous?
12. Height feet, inches. Weight, lbs. Normal weight, lbs?
13. Right kidney descends inches; is replacable under ribs?
14. Left kidney descends inches, is replacable?
15. Greater curvature of stomach above, on level with or below umbilicus?
16. Lesser curvature can be defined inches below ensiform?
17. Appendix palpable, enlarged, recurrent attacks, last attack? Sensitive at present time?
18. Any abnormalities or dislocations of other organs?

Lacing and putting on corset.—To support the viscera in the diaphragmatic portion of the abdominal cavity, where they have gravitated owing to the semi-opisthotonos posture assumed by the patient, the corset laces must be put in as follows: Beginning with the upper holes, lace down to the sixth from the bottom, then insert a second lace from that point down to the lowest holes, leaving the back open five or six inches. Wrap the corset around the waist, lie down upon the bed or couch, pull the corset well down over the hips, draw up the knees, raise the hips well up from the bed, and fasten the corset from the lowest hook upward. While in this posture, draw on the lower strings, closing the corset as snugly as possible before sitting up; then adjust the upper lace, bringing the upper part of the corset together to a comfortable degree, but never closer than four inches at the top. The wearer will find that the wider open the corset is at the top, the more comfort she will experience in breathing and after eating"

It has been found impracticable to adapt one type of corset to all types of patients, and we have corsets which have besides the lacing at the back, lacing at the sides; and others which have front lacing. I have found, however, that it is almost impossible to adapt any of these types of corset to very short and very thin patients. The short distance between the lower border of the ribs and the spmphysis pubis necessitates short front steels, which if sufficiently powerful to support the viscera, cause great distress, especially when sitting down. In order to overcome this difficulty I have devised a supporting aluminum pad, attached to the end of a truss like steel spring, which is fastened on the otuside of the corset, the front springs of which are softer and which does not have to be laced so tightly. The ordinary truss steel is unsatisfactory, because when it is bent to fit the body, the lower border projects beyond the upper, and will cut the dress unless heavily padded, which is very undesirable.

The less unpleasant we make our remedies, the more apt are our patients to take them, and I have found that the average patient will wear a supporting corset more faithfully than she will an abdominal belt, because it does not involve the placing of an extra garment, and is merely a different type of something to which she has become accustomed. Abdominal bandages and belts, in order to maintain their position, must have under straps which are at best unpleasant, uncomfortable and unclean; but we will find a few patients who cannot wear any form of corset, and in these we must resort to belts or plaster strapping.

When neurasthenia is coincident with enteroptosis, a rest cure is often in order before putting on a corset, and in a large number of cases both diseases will be symptomatically cured by these means.

The following cases are illustrative of some of the types of enteroptosis with which he have to deal:

Mrs. G., aged 65 years, has had five children and has been well up to the past few years when she began to have trouble with her stomach and lost considerable flesh. I saw her for the first time during one of her stomach spells (Dietl's crises) and discovered a mass about the region of the pylorus which was very tender and somewhat movable, but on account of tenderness and nausea could not be accurately palpated. Examination of the stomach contents negative. Two days after first visit mass had disappeared, but the stomach was still much upset. Examination disclosed loose kidney, which could then be forced down as low as the pelvic brim. Patient was kept in bed two weeks and was then allowed to get up after having had a corset fitted. She gained 37 pounds in the next three months and had no further trouble until one year later, when I was again called and found her with a very severe crisis. She was obliged to remain five weeks in bed before she was able to get up. She had worn her corset faithfully for several months and then became careless, and would get out of bed and remain up for an hour or two before putting on the corset, allowing the kidney to descend and thus be injured rather than benefited by the corset.

Mrs. R. T., aged 24 years, nullipara. Previous history good. I did an abdominal shortening of the round ligaments for retroflexion, one year previous

to her last illness, which began with pain in the right lumbar region, increasing on exertion or long standing. Examination disclosed the right kidney freely movable, but not tender, and easily replacable. I ordered a corset and she was perfectly comfortable until one day she attempted to life a patient; when she experienced a violent pain in the right lumbar region, and as the pain was repeated every time the slightest exertion was made, I decided to do a nephropexy. She has been wearing the corset since the operation, and has been perfectly free from pain. It is noteworthy that her father had suffered from movable kidney and I did a nephropexy on her sister seven years previously, for a very painful movable kidney.

Mrs. A., aged 35 years. I was called first on account of pain in the back, and stomach trouble, which was supposed to be due to a chronic cough. I found a thin, tall, woman with an advanced chronic tuberculosis of the lungs of 8 years standing, and a freely movable right kidncy which was easily replacable. The left kidney was movable also, but to a much less degree. She gave a history of getting up in the morning feeling very well, but after putting on her corsets and clothing she would begin to feel pain and misery in the abdomen and back. Every time that she took a carriage ride she would have to loosen her corset and waist bands before getting home, and would almost tear off her clothing to get into bed and obtain relief. I had her fitted with a supporting corset and she has had no pain in the stomach or back since.

Mrs. W., aged 45 years, 4 feet 4 inches high, had been complaining about her stomach for several years, and of late has suffered from retention of food in the stomach with production of gas to such an extent that she was afraid to eat, and was reduced to a mere skeleton, weighing 83 pounds. Examination disclosed a pendulous abdomen with a large hard mass on the right side, extending from the lower border of the ribs to one inch below the umbilicus. This was thought to be a large movable kidney, which was pressing on the doudenum, causing partial obstruction at the pylorus and dilatation of the stomach, extending two inches below the umbilicus. There was slight icterus and chronic constipation. I advised a gastroenterostomy to relieve the dilated stomach and a nephropexy for the supposed movable kidney. On opening the abdomen the mass was found to be the liver, which was rotated so that the right lobe was almost directly under the left, the gall bladder almost horizontal, and the pylorus angulated so as to be almost completely obstructed. I did a posterior gastroenterosotomy according to the method of Roux, using two Murphy buttons. I placed three stitches in the broad ligament to endeavor to draw the liver back into place, but it was impossible to restore it to its proper position. The kidney was not sufficiently movable to warrant interference. She has improved considerably, and has been wearing a supporting corset, which has given her great relief, and at the present time she weighs 105 pounds. I have at present about 100 patients who are wearing corsets for the support of prolapsed viscera, and practically all are enjoying fairly good health, and have been symptomatically cured of their enteroptosis.

SPASMODIC TORTICOLLIS.

By P. C. H. PAHL, M. D., Los Angeles.

By P. C. H. PAHL, B. S., M. D., Los Angeles.

Case I. *1. Woman, 29 years of age, of good family history, head and eyes frequently drawn to one side through spasm; formerly there was pain in the movements, but this, after some fifteen years, ceased. All attempts at a cure proved unsuccessful, no operation was performed. Patient was declared incurable.

Case II. *1. Son of former, 29 years of age. He noticed that his eyes got weak from looking sideways and soon his head commenced spasmodic movements similar to those of his mother. He had been treated by hydrotherapy, massage, electricity and gymnastics; no improvement followed. The division of the sterno-cleido-mastoid was proposed.

Case III. *1. Brother of preceding. At 34 years of age he had influenza and, soon after, he noticed that the head began to make spasmodic movements sideways; when his eyes turned sideways, he said that he then knew that he would have the same trouble as his mother and brother. The man is perfectly healthy and is not much inconvenienced; he has not been treated.

Case IV. *5. A Hebrew drummer, 53 years of age, neurotic family history, noticed vague pains in the right arm; later he noticed pain in the left side of his neck, and soon the arm on that side was involved. Within a year of onset he fell from a car, striking on the right side of his chest and on his right elbow; within a month of the accident the pain on the left side of his neck became much more severe, prevented sleep and caused him much mental distress To diminish these pains, he turned his head to the right; this alleviated him slightly but, in time, he made this movement to the right without noticing it and thus a tic (spasm) arose. This soon became more troublesome than the pain; his finger placed on the chin prevented the movement temporarily and afforded relief, but the general spastic condition soon became more violent, ceasing only during sleep. Sometimes by making a strong effort he could arrest the movement. Author mentions no treatment.

Csse V. *5 Woman, 50 years of age, has always been nervous. She had at first a slight pain in the back of her head; this troubled her very much, and she noticed a crackling sound when she turned her head backward. In her mental trouble, she repeated this movement frequently until it gradually became automatic. Though the crackling sound is no longer heard, the movements have continued for several years. When her mind is occupied and she does not think of her trouble, it disappears. It even stopped for several months when her daughter was married, as the excitement of the wedding and the meeting of many old-time friends kept her preoccupied. When she returned to her habitual life, the jerking reappeared; author mentions no treatment.

Case VI. *5. Male, 26 years of age, comic singer. One day on the stage he felt a painful spasm in the left arm. At home he rubbed his arm without relief; he was much worried and forced to give up his profession. When he was 29 years old, he noticed, for the first time, a spasm of the muscles of the neck; the head was suddenly jerked to the right and the face directed upward. At first this movement was rare, but gradually became frequent; movement could be stopped by placing right hand on chin. The patient was never hysterical, has never been neurasthenic; no syphilis; no alcohol, and has never been seriously ill. His mother, however, was a diabetic and a brother died of meningitis; a neurotic heredity is not doubtful. No treatment mentioned.

Case VII. *6. Male, mechanic. When 34 years of age, he suffered frequently from vertigo, which disappeared at the end of the year, but he still suffered from frontal headache and tinnitus aurum. A spasmodic movement of the head, which he first noticed when he was about 35 years of age, a year after onset, gave him much anxiety; these movements occurred at short intervals; the head bent over toward the right and backward. It was easily prevented in the beginning but, later, it could only be controlled with the assistance of one or both hands. Sometimes the patient felt as if pressure were brought to bear on the left half of the face, forcing it toward the right, backward and upward. When the patient was accosted or his attention di-

rected to something, the movements stopped; they also disappeared during sleep. The patient was easily excited and got very angry; during the excitement the movements were very much increased; there was no pain. This was doubtless a case of "psychogenous torticollis," which was confirmed by the therapeutic success.

The principal stress was laid on the training of the will power; the passive toleration of habitual movements was combated. Except during moments of great anger, the patient is now quite well, and the pedagogical method has proven a complete success. In these cases, the physician must act as educator.

Case VIII. *7. Woman, 21 years of age, was thrown from a wagon, falling on her head and back; she was stunned but soon recovered sufficiently to walk home. From this time on, she suffered severely with pain in occipital region; she has a spot of great tenderness about an inch to the left and a little above the occipital protuberance, and pressure here will bring on the spasm or increase its violence. In this case, it is highly probable that the spasm is due either to direct lesion of the spinal accessory nerve or to reflex irritation from some anastomosing nerve. I think that the spasm, in this particular case, is reflex due to injury and subsequent inflammation of either the major or minor occipital nerve. If this view be correct, then the treatment operative or counter irritant should be directed to the nerves which are the source of irritation, rather than the nerves causing the spasm. The patient had her sterno-cleido-mastoid muscle cut some months ago, without success. Patient seems to improve; she takes, internally, the fluid extract of gelsemium, beginning with five drops three times daily, increasing the dose one drop daily until at present she takes eighteen drops three times a day; iodide of potash gr. X, bi-chloride of mercury gr. 1-32, have been given. The actual cautery has been applied, three times a week, to the back of the neck and left occipital region with beneficial results.

Case IX. *8. Male, farmer, 29 years of age, has never been sick; no alcoholism; no syphilis. At the age of 9, writers' cramp began to appear; at 18, torticollis appeared for the first time, soon to be followed by spasm of the flexors of the feet and legs, first on the left, and then on both sides; walking is very difficult and torticollis becomes more severe. Clinical examination: Torticollis is due to the contraction of the splenius, trapezius and sterno-cleido-mastoid of the right side; head is bent to the right and backward; this almost permanent position is accentuated every moment by clonic spasms. Normal position can be gained only by will power or by applying the hands; the torticollis disappears entirely during sleep. The hand can hold the pen and take ink from the ink-stand, but if he wishes to trace letters, the fingers are cramped on the pen-holder and the hand against the paper; writing is very slow and painful and requires a great effort. When standing, the body is not straight but inclined to the left, the right shoulder is raised and the head carried to the right and backward and is agitated by slow contractions. The walk is hard to describe; the right foot is always first and the left follows, the legs move with great difficulty and the patient walks from the pelvis. At every step, the trunk is thrown back and the spasmodic contraction of the muscles of the back and neck are exaggerated; during walking the torticollis is very marked and a spasm of the cheek appears. All tendon reflexes are abolished in the lower and upper extremities; the cutaneous, cremasteric and abdominal reflexes are rather increased; the voice is slow, as if held by a spasm of the lips; the whole picture shows a close symptomatic relation with Friedrich's ataxia and hereditary ataxia. The cerebellar symptom complex dominates in Friedrich's ataxia and the cerebellum seems to be the direct or indirect cause. No treatment given.

Case X. *9. Woman with three children. When she was 39 years of age, while running, she suddenly felt a jerking of the head which caused it to oscillate on all sides. The oscillations persisted for a week; they were quieted by remaining in bed and increased by making movements. At the end of a week, the face was turned toward the left side, while the head was shaken by spasmodic movements which continued for a period of two years, when a portion of the spinal accessory nerve was ex-sected and Keen's operation for the division of the posterior cervical roots was performed. It was found that she received only partial relief from the division of the nerve, and a complete recovery followed three or four months after the latter operation was performed. Electricity, massage, hydrotherapy, anti-spasmodics and all kinds of treatment had been tried without success.

Case XI. *10. Male, 22 years of age, was troubled by drawing of head to the right; complete rest was followed by recovery. For 29 years, he had no especial trouble except a sense of uneasiness in the sterno-cleido-mastoid muscle. At 51, he began to feel a drawing in the neck; at 54, the trouble had increased and spasmodic symptoms appeared. These soon became so aggravated that the head became unsupportable, and his sleep was so much disturbed that hypnotics were constantly necessary. There was marked contraction of the right sterno-cleido-mastoid muscle, by which the head was strongly rotated to the left, at the same time the head was slightly retracted by the contraction of the posterior flexors of occiput. The ex-section of an inch and a half of the spinal accessory nerve was followed by a complete cure but, after a year, the spasm began to recur in the same locality and, in six months, was as bad as ever. Second operation. Search was made for nerve filaments in the scar tissue whereby the sterno-cleido-mastoid muscle was extensively cut and neurectomy was practically supplemented by muscle division. The result was brilliant, being immediate and permanent cessation of spasm.

Case XII. *10. Woman, 40 years of age, spasm in right sterno-cleido-mastoid muscle; re-section of spinal accessory nerve; complete and permanent relief.

Case XIII. *10. Male, 28 years of age, spasmodic twitching of neck of eight months standing. Large doses of quinine salicylate of soda and iodide of potash were used without success. Operation: Incision, four inches in length, along anterior border of sterno-cleido-mastoid muscle; nerve stretched. Twitching disappeared for two months; soon after sterno-cleido-mastoid muscle began to twitch again. There was great improvement, but movements persisted.

Case XIV. *10. Woman, 45 years of age; right spinal accessory nerve resected with immediate benefit.

Case XV. *10. Woman. At 57 years of age, had neuralgia of the head and face; at 62 began to carry head to the left; spasm of the right sterno-cleido-mastoid muscle; trapezius not affected. Operation: Two inches of spinal accessory were removed. Ten days later, there was still some tendency to turn to the left. She was then lost sight of.

Case XVI. *10. Male, 40 years of age, blacksmith. In March, 1872, he had influenza and also sprained his neck; in April, he noticed that he was getting wry-neck, accompanied by spasms; the chin was drawn to the right. Operation: Left spinal accessory nerve was re-sected; relief only temporary. Head is still rotated to the right but, instead of being drawn forward, is now drawn forcibly backward, showing that the posterior rotators on the right have become involved. Patient refused another operation.

Case XVII. *10. Woman, 40 years of age, decided neurotic temperament, has had one attack of pneumonia Soon after, she complained of weakness and prickly sensations in the arms and legs, has typical spasm of left sterno-cleido-mastoid and trapezius muscles, head being turned completely toward the right side. Operation: Long piece of spinal accessory nerve removed; immediate cure of spasm. It recurred some time after but gradually ceased; at present patient shows marked rotation of head to the left.

Case XVIII. *10. Male, 46 years of age, mother neurotic, patient nervous; movements came on gradually, head rotated to the right and bent backwards. Left sterno-cleido-mastoid muscle is tense, as well as the rotators in the back of the neck on the same side. Patient refused operation.

Case XIX. *10. Male. In this case, the posterior muscles of the neck were affected on both sides; head was drawn backward and a little rotated to the left; no movements when lying down, but were increased on walking or working. Treatment, tincture of gelsemium, massage and stretching for seven weeks, resulted as follows: Head was held naturally and patient went to work; massage seemed to be beneficial; there was no operation.

Case XX. *10. Woman, 48 years of age, head drawn to the right and slightly rotated, right sterno-cleido-mastoid muscle rigid and permanently contracted. Operation: Spinal accessory nerve was excised. Head took normal position but the right trapezius again contracted. Patient would not undergo another operation.

Case XXI *10. Woman, 40 years of age. Head rotated to the left and retracted, right sterno-cleido-mastoid muscle stood out distinctly. In 1894, the spinal accessory nerve was removed and we hope that recovery will be complete. If the head is still rotated and retracted at the end of a month, we shall re-sect the posterior branches of the upper cervical nerves.

Case XXII. *12. Female, dressmaker. When 21 years of age, she had numerous fainting fits; when she was 36, she noticed slight stiffness and occasional twitchings in the neck, which progressively grew worse. Examination showed head turned to left and retracted, face sometimes looking directly upward. A firm grasp of the hand on the nape of the neck greatly diminished the force of the spasm; consequently, a spring clamp was made of light spring steel, broader and heavier, but otherwise similar to ordinary trouser guards worn by bicyclists, with a tail piece from the middle of the spring, running about six inches down the back. When the clothing was buttoned tightly over it, this tail piece helped to keep the spring closely applied; a gentle pressure was thus exerted on the side and back of the neck as far forward as the anterior border of the sterno-cleido-mastoid muscle. The results were best when the collar was worn at about the level of the jaw. The application of the apparatus instantly stopped most of the twitching, although the symptoms would at once recur upon removal of the pressure. After wearing the apparatus constantly for six months, it could be discarded for several hours without recurrence of spasm. One month later, the patient's eyes were examined and astigmatism with oblique axis of both eyes, was discovered and glasses fitted; eleven months later, neither clamp nor glasses had been worn for several months; patient is practically well, with a slight left fixed torticollis of a painless nature remaining.

Case XXIII. *12. Female, 32 years of age, severe spasm, constant action of the right sterno-cleido-mastoid muscle and left posterior cervical rotators. The patient was practically cured in three months by the application of the spring clamp described in Case XXII, supplemented by a careful system of gymnastics (Delsarte movements) especially those of the neck. Very little attention was given to the development of the muscles directly opposed to those involved in the spasm. Exercises were designed to improve the general poise and to secure control throughout the body.

Case XXIV. *13. Female. When she was 25 years of age, she became a sufferer of severe spasmodic wry-neck, commencing a few weeks after a strain of the neck in trying to get into a boat, was spasmodic from the beginning, and, year after year, gradually became more severe. There was violent spasmodic action of the left sterno-cleido-mastoid and trapezius muscles, also spasmodic action in the splenius capitis and other muscles on the right side of the neck. I tried, for some months, the effect of fixation and medical remedies. The effect of a supporting instrument was decided ly benefitcial but it only partially controlled the spasmodic action.

First operation: Left spinal accessory nerve was stretched and some of the filaments entering the sterno-cleido-mastoid muscle were severed, resulting in a relief of spasm on the left side.

Second operation: Ex-cision of a piece of the external division of the great occipital nerve, also the posterior branches of the third and fourth servical nerves. The splenius capitis was separated from the parts beneath and all filaments of nerves passing into it ex-cised. Complete recovery with practically no loss of power from muscular paralysis.

Case XXV. *13. Male, 56 years of age. Without cause, spasms appeared on right side of neck. Drugs had been extensively used without results; operative measures, similar to those in the previous case, were taken and resulted, eventually, in a complete cure.

Case XXVI. *14. Female, 47 years of age; slight sufferer from spasmodic torticollis, which was much increased by the death of her husband; right side affected. Neurotic family history, patient hypochondrical. Treatment, pedagogical, unsuccessful.

Case XXVII. *15. Male, 26 years of age, when his head became twisted to the right; three years later, a spasm of the posterior muscles of the neck developed so that the head was drawn backward; soon the spasm attacked the muscles of the mouth, then those of the back and femurs. All this consumed a period of three years; the spasm remained about stationary for the next 26 years. They were constant at eating and drinking, and even in sleep. Examination: Head was always moving, movements began slowly and were quickly intensified; when they reached the climax, they quickly died out, to begin again in a few seconds. The right sterno-cleido-mastoid muscle was enormously hypertrophied, as well as the neck muscles, which pull the head backward. The prevailing spasms of the posterior neck muscles made this a case of "retrocollis spasmodicus." Operation; re-section of spinal accessory nerve and posterior branches of the first, second and third cervical roots, at one sitting. This was followed by immediate marked improvement; even the next day after the operation, there were only slight vibrations of the chin upward and to the left, which could easily be controlled by the patient. The spasms of the loin muscles, which were absent when lying down but severe when walking, were unaffected.

Case XVIII. *16. Female. At 24, she had a convulsion; at 28, when her husband died, she was in a state of great mental depression. It is stated that she sat on a balcony for hours sewing, and, to distract her attention, she frequently turned her head to the right to look down the street. After a time, the head took this position involuntarily. Finally, spasmodic movements developments followed by pain, more or less acute, in the dorsal region of the vertebral column. Walking, which was impossible without placing the hand to the cheek, aggravated the spasms. Patient mentions no treatment.

Case XXIX. *17. Female. At 14 years of age, she noticed a slight turning of the head, and it soon became much increased; at 17 head rotated to right 30 degrees on a vertical axis, extended to right 20 degrees on a transverse axis and flexed on left shoulder 40 degrees on an antero-posterior axis; spasm was intermittent but never quite absent. With strong effort she could keep her head straight for 30 seconds, but could not walk across the room without supporting her head. The sternal and clavicular end of the sterno-cleido-mastoid was divided by some surgeon; later, one and one-fourth inches of the spinal accessory nerve was ex-cised; the levator anguli scapulae, the scalenus posticus and the splenius capitis were divided without success. A brace was constructed to hold the head straight; conium, in steadily increasing doses, was given, beginning with five drops t. i. d., increasing the dose two drops daily. When vision was affected, dose was decreased and again increased until, in two months, she took eighty drops; a month later, one hundred and forty drops; legs very weak, spasms diminished a little. Injections of an aqueous solution of sulphate of atropin once a day into the muscles affected and into painful points; four drops of a solution, one grain to the ounce, were injected; three days later, six drops; spasms immediately diminished after the injection for several hours. She had some nausea and vomiting. Spasms soon reappeared and patient refused to continue treatment.

Case XXX. *17. Female, 21 years of age, usual history. Gave conium with spinal assistance brace; improvement after a month's treatment. After about a year, she takes one hundred and eighty drops of conium daily. Spasms do not entirely disappear. Patient is discouraged and discontinues treatment.

Case XXXI. Female. When 15 years of age, she was taken with right-sided spasms which gradually became worse until jerks were extremely violent, so as to bring left ear into line with the sternum. The spasms occurred every few seconds and did not entirely cease during sleep; she had been treated with drugs, galvanic electricity, blistering, counter-irritation with the galvano cautery and, finally, had tonsils removed, all without success. Operation; the spinal accessory nerve was ligated with a silver wire as high up as could be reached, the ends of the wire being twisted to insure slight compression; the cure was complete. At the end of three months, the patient was still without the slightest return of spasm and could rotate and retain the head in any position.

Case XXXIII. *19. Female, 39 years of age, who, for four months, had been treated with drugs in large doses, without effect. The right spinal accessory nerve was cut down upon and three-quarters of an inch removed; the patient became practically well.

Case XXXIII. *20. Female, 20 years of age. She had severe spasms of the left sterno-cleido-mastoid; the exciting cause seemed to be the death of a relative whose condition had been unimproved after eight years of various treatments. Operation; the left spinal accessory nerve was stretched and evulsed. A long, slender nerve was pulled from the jugular foramen and four and one-half inches of it excised; no injury resulted from tearing the nerve from its roots; the operation was an immediate success. A year later the patient was still entirely well.

Case XXXIV. *21. Female, 28; spasmodic contraction of left sterno-cleido-mastoid; head jerked down toward left shoulder, face being turned toward the right and chin thrown violently upward. The spasms gradually increased until, at the end of three years, the head was permanently drawn toward the left. Operation; a very much enlarged lymphatic gland was found beneath the sterno-cleido-mastoid muscle, at a point where the spinal accessory nerve enters the muscle. This, with about an inch of the spinal accessory nerve, was removed. Patient was very much benefitted but still had some slight inconvenience from twitches in the neck; steadily improved.

Case XXXV. *22. Male, sailor. When 31 years of age had quotidian ague and, two weeks later, was seized with spasmodic movements of the head; some pain in back and neck. He showed rotary movements of the head to either side, but more particularly to the right; the movements were constant, increased on exertion and ceased during sleep. Operation; one and one-half inches of spinal accessory nerve were excised; cure a complete success.

Case XXXVI. *23. Male, trombone player, 29 years of age. He had been affected with spasmodic torticollis for eight months; spasms, at first slight, gradually increased. Patient was very nervous and excitable; the right sterno-cleido-mastoid and the right trapezius were the only muscle affected. Counter irritants, galvanism, bromides, belladonna, Indian hemp, morphia and atropin had been used without success. Operation; division of the right spinal accessory nerve at a point where it enters the sterno-cleido-mastoid muscle. During the first six days, the patient was free from spasm, then a slight twitching was noticeable, but this gradually disappeared; a complete recovery resulted.

Case XXXVII. *24. Case XXXVII was unsuccessfully treated by ligating the spinal accessory nerve with silver wire.

Case XXXVIII. *25. A case of spasmodic torticollis following injury to a cervical spine was successfully treated by stretching the spinal accessory nerve.

Case XXXIX. *26. (Cotton H. H. P.) Case of spasmodic torticollis treated with thyroid extract.

Cases XL, XLI, XLII, XLIII, XLIV, XLV, XLVI. *27. No particulars given; the patients were operated on by Kocher, who divided the cervical muscles; these cases were seven out of twelve, that were completely cured.

Cases XLVII, XLVIII, XLIX. The patients were operated on by the same surgeon and by the same method, but were only benefitted by the operation.

Cases L, LI, by same surgeon, following the same method, showed no improvement.

Case LII. *28. Male, 29 years of age, developed a clonic spasm of the right side. Treatment: 1-200 of a grain of atropin sulphate was daily injected into the sterno-cleido-mastoid muscle; the dose was gradually increased until, after three weeks, 1-45 of a grain was used; electricity was also administered during the time. The patient became comparatively well and returned to work.

Case LIII. *29. Female, no age given. Some time ago, she sustained an injury to the back of her head, causing clonic spasms in the muscles of the neck; gelsemium was tried without success. Operation: The spinal accessory nerve was exposed and ligated with wire; the wound healed kindly, the wire ligature occasioned no inconveniences. Result not stated.

Case LIV. *31. Male, 26 years of age, physical and mental degenerate and melancholic. He had attacks of excitement and hysterical seizures; he had jerking movements on the left side of his face which raised the labeal commissure; the head was thrown toward the left side. Treatment: Pedagogical, gymnastics, baths and massage. After five months, the patient feels much better mentally and physically, though the torticollis has not disappeared.

Case LV. *31. Male, 25 years of age, nervous degenerate. He had spasmodic condition of left side of neck; patient was slightly improved under hygienic and pedagogical treatment.

Case LVI. *32. Female, 30 years of age. She was taken with spasms in the right sterno-cleido mastoid and the trapezius muscles; the face was rotated to the left side; there was considerable pain.

While supporting the chin with one hand, she could, with slight effort, bring the head into normal position. An apparatus, with a hard rubber chin piece and two upright pieces holding the back and side of the head, was constructed; it was secured to an upright over which was coiled a spiral spring, applied in such a manner that it could exert either a small or large amount of force. The spring action was directed against the spasm.

Case LVII. *34. Male, 50 years of age. After recovering from typhoid, he noticed twitchings of neck muscles, which gradually grew worse; the head was drawn to the right side and the face rotated to the left; the right sterno-cleido-mastoid muscle was shortened. Operation: An incision was made in front of the sterno-cleido-mastoid muscle and the auricularis magnus, which was mistaken for the spinal accessory nerve, was divided. The patient was turned on the abdomen; an incision of three and one-half inches was made through the trapezius and the posterior neck muscles; the posterior division of the second and third cervical nerves was resected; patient did not improve. Two weeks later: this time, I found the spinal accessory nerve, which was re-sected; no improvement. Third operation: I made an incision along the posterior border of the sterno-cleido mastoid muscle and resected a portion of the superficial branches and a portion of the deep branches of the external series of the cervical plexus. Complete cure followed.

Case LVIII. *35. Male, 27 years old, neurotic family history. Right side in spasmodic torticollis treated by pedagogic method and mild faradic current. Patient was cured after forty days' treatment.

Case LIX. *36. Male, 43 years of age, poor family history. After an exposure, he developed spasmodic torticollis of the right side. The sterno-cleido mastoid muscle was much over-developed; trapezius also hypertrophied; the posterior neck muscles on the left side were much more marked than those on the right.

Case LX. *37. Female, no age given, neurotic family history. Four years ago she became melancholy through grief. She developed spasmodic torticollis of the right side; at times, the left side is involved. The change takes place under the influence of deep emotion; she can stop the most energetic spasm by placing the hand on the chin. Patient was very much benefited under pedagogic treatment.

Cases LXI, LXII, LXIII, LXIV, *38, are cases that occurred in the practice of Dr. Brissaud and Dr. Feindel, of Paris, There are no particulars given, except that they all improved under the pedagogic treatment; none were reported as cured.

Case LXV. *40. Woman, 40 years of age. Had spasmodic torticollis for eight weeks. Operation: re-section of spinal accessory nerve, three quarters of an inch of nerve was removed at a point anterior to the sterno-cleido mastoid muscle. This gave only partial relief; there were no more spasms of the sterno-cleido mastoid muscle, but the posterior muscles contracted. Four weeks later, the posterior branches of the second and third cervical nerves were divided, and attachments of muscles were separated from the occiput. After this operation the patient was entirely relieved. Author thinks that success in this case was due to the fact that the operation was done early, before the spasm habit had been acquired.

(Cases LXVI, LXVII and LXVIII occurred in the practice of the author.)

Case LXVI. Male, 50 years of age, a street preacher who gave five or six services a day besides earning his living at some kind of clerical work. This man was, undoubtedly, much overworked and was suffering from a general nervous breakdown. He observed that the muscles on the right side of his neck became spastic and painful; at first this did not give any great amount of discomfort or incapacitate him for his duties but, in the course of three months, because of severe jerking in his neck whenever he attempted any voluntary muscular effort, he found himself quite unable to do anything. Treatment: The patient was treated without benefit, by suggestion, not especially after the method of Brissaud, but by a physician who has some reputation along this line; next the mechanical method was resorted to and a cast, including the trunk and head, was applied (see Fig. 2.) This was worn for a period of six months without any relief, patient refused surgical treatment and, at the present day, four years later, he is in much the same condition.

Case LXVII. Male. Twenty-three years of age. Left side affected. This man was counter in a laundry; he was required to count a large amount of linen in a very short space of time, necessitating very rapid and wearing work. He was compelled to turn his head constantly from one side to the other and to observe, with accuracy, the large number of different garments and other articles of linen as well as to lift numerous heavy bundles on and off the counting table. He noticed a stiffness in and about the muscles of the neck; this soon developed into a jerking movement which became so painful and annoying that it was impossible for him to continue his work. After consulting many physicians some of whom prescribed medicine for application, others medicines to take and one even blistering the unaffected side of his neck, he fell into my hands. The diagnosis was unmistakable. I placed the patient on massage, galvanic and antispasmodics to which, after thirty days, I added a metal support designed to hold the head in the normal position. The patient was sent to the country for a rest and change of scene, all without the slightest benefit, so, at the end of ninety days, the patient demanded surgical interference. The left spinal accessory nerve was first cut, materially lessening the degree of the spasm, but, at the end of three months, the cure was not complete and at this time the author's operation, described in the text, with the exception of the division of the spinal accessory nerve which had been done before, was performed with absolute success.

Case LXVIII. Male. Forty years of age. A grocery clerk. Left side affected. This man had consulted many physicians but his experience was such that his faith in the medical fraternity was very badly shaken. When I told him his condition and stated that a surgical operation would be necessary, he decided to cast his lot with a physician who offered to operate upon him for a small fee and who, I understand, cut some muscles in his neck without benefitting the patient.

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A CASE OF PLEURAL AND PERICARDIAL EFFUSION.*

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Your committee on program requested me to read a paper before this society on some topic relating to pleural effusion, but further stipulated that my effusion should not occupy more than the space of fifteen minutes. Probably these conditions can be met most profitably by reporting a case in which the existence of pericardial and pleural effusion was suspected from the symptoms exhibited by the patient, but the opinion was gradually abandoned as, during the progress of the examination, sign after sign was discovered which seemed to negative such a conclusion; and today we might have been patting ourselves upon the back and congratulating ourselves upon the mistakes we had avoided by making repeated examinations, had not the autopsy showed that the pericardial sac contained 2100 c. c., and the right pleural cavity 2250 c. c. of fluid.

Perhaps I am doing wrong in selecting such a topic as this instead of reviewing the work that has been done during the last two or three years, but my apology is that while the complicated cases find their way into our wards and consulting rooms, it is impracticable to embody them in the text-books, and hence it is only at meetings such as this that a general exchange and discussion of such experiences is possible.

The patient was 44 years of age, a laborer by occupation, according to habits a heavy drinker and smoker, while from a medical point of view he appeared to have led a rather strenuous life as in addition to minor ailments he had whooping cough once, measles twice, gonorrhea several times, syphilis, small-pox and typhoid fever in one year. He

* To have been read at the Thirty-sixth Annual Meeting of the State Society, April, 1906.

was admitted to the hospital early in January, 1906, but his earliest symptoms were noticed fully three months prior to that time and consisted of dyspnea and vertigo on exertion, accompanied by dry, hacking cough, and latterly his feet had begun to swell. It is not necessary that you should be detained with a description of the physical signs pertaining to the different symptoms; let it therefore be sufficient to say that the eyes, nervous system, alimentary system and spleen were normal; the urine contained a large amount of albumen with many granular and hyaline casts. The blood examination showed R. B. C. 4,600,000; W. B. C., 10,100, polymorphonuclears 83 per cent, small lymphocytes, 9 per cent, large lymphocytes, 6 per cent, eosinophiles, 2 per cent.

The patient's complexion was somewhat dusky, the respiratory movements were much exaggerated, and he sat up in bed or lay either upon his back or his left side with his shoulders raised and his whole appearance was such as to call forth the remark, "this looks like a case of pericardial effusion." Examination of the heart failed to show any marked bulging the precardia, nor could the cardiac impulse be detected either by inspection or palpation. On percussion the border of the heart-dullness just reached the left nipple line at the level of the fifth rib, while below this it curved sharply inwards so that the area of resonance inside the left nipple line and above the upper border of hepatic dullness was much greater than in the normal heart. Above the fifth rib the line of dullness proceeded inwards and upwards, but about the third rib it ran into an area of dullness that extended outwards towards the left shoulder and disappeared under the outer part of the left clavicle. The cardiac apex could not be located, but the point of maximum intensity of the first sound was just below the left nipple. A systolic murmur accompanied the first sound in the mitral area, while both the pulmonic and aortic sounds were sharper than usual.

Lungs. Over the left apex anteriorly there was dullness extending down to the third rib and passing into the cardiac dullness, and over this area the vocal fremitus, vocal resonance and breath sounds were diminished. Posteriorly over the left lung there was also dullness at the apex, while the breath sounds were high pitched. The right lung anteriorly was resonant at the upper part and auscultation revealed bronchial breathing and a few crepitations; about the fourth rib the resonant percussion note diminished and passed into the hepatic dullness. Posteriorly and in the auxiliary lines there was marked dullness, reaching as high as the level of the fifth dorsal vertebra and over this area the breath sounds, vocal fremitus and vocal resonance were diminished. The intercostal spaces on this side were widely spread and were sucked in with each inspiration as markedly as I ever saw in a case of asthma. The patient's most comfortable position was sitting upright or reclining upon his left side.

Such is as brief a sketch as I can make of the clinical features of the case without sacrificing essential points. Both pleural and pericardial effusion were suspected and their existence frequently discussed, but finally abandoned in favor of mediastinal tumor, a diagnosis that was arrived at by consideration of positive evidences of a tumor and also by observing physical signs that appeared to make the existence of pericardial and pleural effusion improbable.

The positive evidence of tumor consisted in the triangular area of absolute dullness at the upper part of the left lung with its base below the manubrium sterni and its apex disappearing below the outer end of the clavicle; as already stated over this area there was a loss of vocal fermitus, vocal resonance and breath sounds. The idea that a tumor existed, found still further confirmation about ten days later when a large swelling was discovered in the right supra-clavicular space, non-pulsating, non-fluctuating, not attached to the skin and unaccompanied by dilated veins or local edema. We thought that possibly this formation had been overlooked in the earlier examinations, and I may add that it rapidly diminished in size while the patient was taking iodide of potash.

The diagnosis of pericardial effusion was rendered still more improbable because no dullness could be obtained beyond the left nipple line, the maximum intensity of the first sound was just below the nipple, and there was an area of resonance on percussion inside the nipple line that commenced at the upper border of the sixth rib and extended inwards and downwards obliterating part of the area that is usually occupied by cardiac and hepatic dullness.

The decision that the signs on the right side of the chest were not due to pleural effusion was arrived at because (1) there did not appear to be any displacement of the heart to the left side; (2) the intercostal spaces were deeply retracted with each inspiration and hence the opinion prevailed that during inspiration there was a negative pressure within the pleural cavity instead of a distending fluid; (3) the patient breathed better lying upon his left side and it was argued that if the right lung were expanded from the pressure of fluid in the pleural cavity, then he would naturally lie upon his right side so as to give free play to the left lung. Those considerations with the positive indications of a mediastinal tumor seemed to warrant the following interpretation of the physical signs as they existed on the right side of the chest: (1) The percussion dullness was due to thickening of the pleura either from new growth or from a former pleurisy. (2) The bronchial breathing at the upper part of the lung was the result of condensation of the lung in that area from pressure of a tumor. (3) That the retraction of the intercostal spaces indicated an effort to overcome the obstruction to the entrance of air into the lung caused by pressure of a tumor upon the bronchus.

Such was the diagnosis and it would have remained had it not been for the autopsy.

The post-mortem examination was made by Dr. Geo. Blumer, and the following is an epitome of his findings: The abdominal cavity contained about 1200 c. c. of fluid, but the peritoneum was apparently healthy and did not show any signs of old or

recent peritonitis. The liver, spleen, stomach and intestines appeared to be normal with the exception of some passive congestion. The kidneys showed the existence of a subacute nephritis. The tissue of the anterior mediastinum was converted into scar tissue and adherent to the posterior surface of the sternum, in fact, the tissues of the anterior mediastinum were replaced by a new growth, greyish-pink in color, which included the pericardium, aorta and all other structures in the anterior and posterior mediastina. The pericardium was immensely distended and contained 2100 c. c. of fluid. It extended from the mammillary line on the right side to the lateral chest wall on the left.

The right pleural cavity contained 2250 c. c. of fluid almost clear, but bile stained. There were not any signs of recent pleurisy, but the lung was attached by old adhesions to the 4th, 5th and 6th ribs, in the line of their angles over an area about three inches in diameter, the middle and lower lobes were atelectatic, the upper crepitant and congested. On the left side the pleura and lung were diffusely thickened by the neoplasm, the middle and upper lobes being infiltrated with this growth to about the depth of 1.5 c. m. This left lung lay behind the distended pericardium, and along its posterior margin was attached to the spinal column by dense bands.

The right side of the heart was practically empty and the left contained a very small quantity of fluid blood. The tumor in the right side of the neck was a thrombus of the jugular vein.

The following is the report of the histological examination of the various tissues: The tumor varies in appearance in different places. There is a cellular portion made up of masses of small round cells with a deeply staining nucleus and very little protoplasm. These are separated by a fine stroma, and large numbers of thin-walled vessels are present between the cells. In some places the vessels show an obliterative process, some of those which are filled up closely resembling Hassal's corpuscles. The most of the tumor is composed of dense fibrous tissue between the strands of which an occasional round cell is seen.

In the affected portion of the lung the tumor has caused complete occlusion of most of the alveoli, and only a few spaces lined with cuboidal epithelium remain. The lungs outside of the area involved in the tumor show thickening of the alveolar walls from dilatation of the vessels, and a loose exudate in the alveoli. The exudate is composed in places of coagulated albuminous material, in other places of desquamated epithelial cells, red blood corpuscles, and "heart-failure" cells. In a few alveoli polynuclears are present in moderate numbers.

The liver shows a moderate degree of dilatation of the central veins with compression of the surrounding liver cells and slight fatty degeneration of the cells at the peripheries of the lobules.

The spleen shows dilatation of the sinuses with blood, and slight thickening of the trabeculæ.

The kidney shows dilatation of the capillaries with swelling and granular appearance of the parenchymatous cells. There is an occasional fibroid glomerulus, and slight increase in the connective tissue of the medulla.

The adrenals and pancreas show nothing beyond dilatation of the veins.

The testicle shows a moderate increase in the connective tissue rather patchy in character.

Histological diagnosis: Round cell sarcoma of the anterior mediastinum probably originating from the lymph nodes. Infiltration of the lung and neck muscles. Chronic passive congestion of the lungs (with edema), liver, spleen, adrenal, pancreas and kidney. Cloudy swelling of the kidneys. Chronic interstitial orchitis.

It will be remembered that the diagnosis of pericardial and pleural effusion was abandoned because, apart from the positive evidences of a tumor (1) the line of cardiac dullness did not extend beyond the left nipple and did not reach that distance at the level of the sixth rib; (2) the right intercostal spaces were drawn in by each inspiratory movement; (3) the patient was most comfortable when lying upon his left side. How can we reconcile these conditions with the findings of the autopsy?

We can readily understand that the position in which the lung was discovered at the post-mortem examination, was not that which it occupied immediately prior to the death of the patient. So soon as the lung ceased to be inflated by respiration, it would be pushed aside by the weight of the distended pericardium, and this doubtless would be facilitated by the jolting of the viscera which took place when the cadaver was carried from the ward to the morgue and placed upon the table; furthermore, the moment the thoracic vacuum was destroyed by incising the chest wall, the lung would collapse completely behind the pericardial sac. Before death, however, the patient's respiratory capacity was almost entirely limited to the lower and anterior portion of the left lung, which would therefore be distended to its uttermost, overlap the heart as in a case of emphysema, and in this way diminish the area of cardiac dullness and obscure the extent of the pericardial effusion.

The retraction of the right intercostal spaces during inspiration is less easy of explanation. It can not be explained by the presence of adhesions because the area of retraction extended over a surface which was perfectly free; moreover, the following case that came into my wards about ten days later, appears to demonstrate a distinct relation between the amount of fluid in the pleural cavity and retraction of the intercostal spaces.

This second patient had the usual signs of right pleural effusion, i. e., dullness on percussion, diminution of vocal fremitus, resonance and breath sounds with displacement of the heart for more than one inch beyond the left nipple line; but while the patient lay on his left side the right intercostal spaces were drawn in during inspiration. The case was first seen upon Monday morning and absorption of the fluid took place with comparative rapidity, so that upon the following Saturday the cardiac apex was inside the nipple line and the signs of pleural effusion, together with the retraction of the interspaces, were very much diminished, but, in

order that the diagnosis might be established beyond question, by demonstrating the presence of fluid, an aspirator needle was introduced and 500 c. c. of serum withdrawn from the right side. Two things were very evident in this second case: (1) The retraction of interspaces on the affected side diminished as absorption took place; (2) during the morning on which he was tapped, the patient was examined in the upright position and no difference between the movements of the two sides could be detected.

The general impression regarding pleural effusions is that they cause distension, if not actual bulging of the intercostal spaces, and in no instance have I been able to find any reference to retraction, unless it could be attributed to the existence of adhesions between the chest wall and the lung, but the phenomena could not be explained on this basis in either of the cases above reported, because in the first the adhesions were not sufficiently extensive to account for the area of retraction, while in the second the retraction diminished with the absorption of the fluid and now has entirely disappeared.

As already related in the first case the supposition was that this tumor pressed upon one of the large branches of the right bronchus and caused partial collapse of the lung, but Dr. Blumer, in his report of the autopsy, is positive that no such obstruction existed either from the tumor or weight of the distended pericardium, and furtherfore in the second case the simultaneous disappearance of the retraction and fluid indicates that the effusion stood in some casual relation, and that the solution of the difficulty must be found in an answer to the question, What influence has fluid in the pleural cavity upon the lungs?

The statement that pleural effusion compresses the lung is true, but not in the sense frequently accepted, which appears to be that the lung is pushed against the spinal column or chest wall, whereas autopsies show that the unexpanded or atelectatic portion of the lung is that in contact with the fluid. When effusion takes place the size of the pleural cavity is diminished and if the lung were perfectly free, instead of being held in position by its root and surrounding tissues, the result would be a comparatively uniform diminution in the degree of expansion; but as the relation between the lung and the chest wall is definite, the part that suffers will be that in contact with the body or substance that is diminishing the size of the cavity; hence, if there be an enlarged gland, tumor or aneurism in the upper portion of the thorax we find the part of the lung in contact with it is atelectatic, or if the obstruction to expansion be in the lower part of the chest, whether it be solid tumor or liquid effusion, the lower lobe will be unexpanded; in short, it is always the part of the lung in proximity to the obstruction that is carnified, the other parts being unaffected or even over distended.

When air enters the lung of a patient who has pleural effusion, expansion begins in the cells nearest to the bronchi, the lower lobe is forced down into the fluid which rises between the visceral and costal layers of the pleura until its upward progress is arrested by the extremely close apposition of the two surfaces. When this limit of displacement has been reached farther expansion of the immersed lobe is impossible, and therefore in a case of moderate effusion the lung will present an area of complete atelectasis, gradually diminishing as it proceeds upwards, while just above the line of effusion the lung is distended to its utmost. The main bronchi remain open except in cases of large effusion which practically fills the pleural cavity and prevents inflation of the lung. It is this condensation of the peripheral portion of the lung with a patency of the larger bronchi permitting the transmission of air waves from the trachea to the atelectatic periphery that accounts for the persistence of a considerable amount of vocal fremitus, vocal resonance and breath sounds in cases of moderate pleural effusion. Were it otherwise, and the orifices of the bronchi were obstructed by pressure at the root, the air waves would be stifled in their incipiency and absolute stillness would result. When the patient is lying upon his back or the affected side the weight of the liquid is sustained by the diaphragm and chest wall, the lung being unimpeded in its movements except by the diminished capacity of the thoracic cavity; but if he lies upon the healthy side, the fluid, as it gravitates to the lowest point, *i. e.,* towards the spinal column, presses upon the lung and its bronchi thereby increasing the difficulty of inflation, because during the expansion the lung no longer simply meets with the obstruction of diminished space, but at each inspiration has to raise the weight of super-imposed fluid which gravitated towards it when the patient assumed this particular lateral position. The result of this pressure is similar to what we find in obstruction of a bronchus either from pressure or the spasmodic contraction of asthma; namely, the delayed inflation of the lung makes that organ abnormally slow in following the respiratory elevation of the chest wall, and hence there is a tendency towards the development of negative pressure within the pleural cavity during inspiration which manifests itself externally by retraction of the intercostal spaces. Of course the degree of retraction will not be the same in all cases but will vary with the amount of fluid. Thus the effusion may be so small that its weight thrown upon the lung will not be sufficient to interfere with inflation, or it may be so great as to completely fill the cavity and prevent the production of negative pressure under any position. This is the only explanation we have to offer of the observation that in these two cases the intercostal spaces were retracted when the patient lay upon the side opposite to the effusion and that the retraction disappeared as absorption took place.

The patient was most comfortable on his left side in semi-dorsal position, probably because it allowed the freest play of the lung space that remained to him *i. e.,* the upper part of the right lung and the lower and anterior portion of the left.

Probably neither of the effusions were inflammatory in origin but rather of the nature of a hydrothorax and hydro-pericardium due not only to the accompanying nephritis but also to pressure of the tumor upon the cardiac veins and vena azygos.

SOME ASPECTS OF LATTER DAY IRREGULARISM.*

By JOHN T. RANKIN, M. D., Los Angeles.

An ever recurring question within the ranks of regular medicine is one which would have for its answer the solution of the problem relating to irregularism, and the developments of recent times, instead of detracting from the interest in this question seem rather to add weight to it, for it appears that the originators of new schools, isms, and pathies are vieing with the breakfast food discoverers in the endeavor to furnish the world the very "latest and best" brand of health restorer.

Within the past twenty years, laws regulating medical practice and requiring certain standards for those who would engage therein, have become general. The various healing sects, therefore, have found it somewhat annoying to carry on their vocation without sanction of the authorities, so we see them pleading for separate and distinct legal recognition.

The osteopaths have led the way in this, and success has so crowned their efforts that others are emboldened to solicit the protection and sanction of the law. In our own city, a sect calling themselves naturopaths, have established a school and are clamoring for a place on the statutes. We must not be deceived in believing that they will fail in their aspiration to secure a legal foothold in the State. This clan and their adherents are growing stronger every day. Their cause and doctrines are upheld by a powerful local paper.

Similar organizations are forming in other parts of the country, and, if the past history of sectarian methods is any criterion, we may expect a determined persistent effort on the part of this body for separate legal standing. The fact that every measure of merit which they propose to incorporate in their system is in constant use by the regular school will scarcely have any effect before our lawmakers.

There is, of course, no more need for a separate school along the lines suggested by this band than there is for a separate school of organo-therapy, or sero-therapy, or for schools holding any exclusive ideas of treatment. It should be plain to all men that a physician, in the full sense of the word, looks upon the therapeutic knowledge of the world as a unit which should not be divided into fractional and incomplete elements to fit the narrow gauge ideas of every sectarian band.

Unfortunately, few regard the subject in this way and our lawmakers in particular seem inclined to assist in spreading the gospel of irregularism. It seems, therefore, that the law, instead of acting, as it should, as a barrier to these various organized bands of healers, is being made a protecting wall.

With osteopathy already well entrenched, naturopathy knocking at the doors, and chiropathy on the threshold, we await, with interest, the entrance of other aspirants into the field. No doubt if some thermo-pneumatic individual were to found a school of practice based upon the administration of hot air and should loudly proclaim its all sufficiency in treating disease, he would be able to pump enough of such atmosphere into the ears of sympathetic and gullible legislators to carry any desired measure with votes to spare.

Let us take osteopathy as a general example of these latter day sects, and briefly discuss it from several points of view. I take this body as being the most notable of recent sectarian organizations, and what I may say of them will apply very well to others of like character. The great plea of the osteopaths, when seeking legal recognition, is that their system is a new discovery, and that *it is able to stand alone as a separate and distinct method.* When, therefore, the lawmakers have granted legal recognition to this sect, they have acknowledged their claim, and the lay public naturally accept the endorsement. What effect then, does the legalization of this practice have upon the public? It means that the health seeker, when referred for manual treatment, will not be content with the services of a layman, but will request that one who is duly qualified as a physician, under the law, shall take the case. Legal recognition gives the osteopath the right to call himself doctor and to accept for treatment any case that may apply. The patient may say, "If I am to have manual treatment, I prefer to take it from a physician, from a man who has the same standing, before the law, that you have, and who the law says, is as capable to treat disease as any. When I consulted you about some refractive error of my eyes, you insisted on my seeing a regular licensed physician, an opthalmologist, instead of the optician whom my friends wished me to consult. Your reason for insisting upon this course was that the optician, being a layman, was not a competent person to take charge of such matters, and on account of his ignorance of disease he might do some injury. But now, in this breakdown, you would entrust my case, for manual treatment, to the hands of a masseur, a layman, who knows no more concerning disease than does the optician, whose knowledge you have declared to be insufficient. Does it not appeal to you that, if my case requires this treatment, I should receive it from a legalized physican, who understands the pathology of the disease, and who can consequently go to work with a specific aim in view?"

In such light is the average layman beginning to look upon this question, and the comparison in variable form, is brought to our attention with increasing frequency. In days gone by, the barber being skillful with the knife, was called upon to do the cutting in surgical cases. We are not told that the tailor was selected to sew up the wound, although his dexterity with the needle should have entitled him to this part of the work. An optician might have a perfect understanding of optics, yet we would not allow him to undertake the correction of the ophthalmic difficulties of our patients. Should the photographer, the instrument maker, or electricians, be entrusted with therapeutic or diagnostic Roentgen Ray work, simply because they may be familiar with certain factors which enter into the physics of the Roentgen Ray?

* Read before the Los Angeles County Medical Association, June 22, 1906.

The busy practioner may not have the time, inclination, or equipment to give electro-therapeutic treatment, but surely he does not refer his patients to laymen for this work. But when it comes to manual therapy, we have become so used to sending our patients to laymen for the treatment, that we regard it as a matter of course. Yet the need for professional care and discrimination in the application of manual therapy is as necessary as it is in the application of electro-therapy. Let us ask ourselves, therefore, why, in one case, we will not refer our patient to any but a regular physician, while in the other case we rest content with the services of a layman.

It is my belief that our profession deprecates the fact that we have become somewhat dependent upon non-professionals for the application of manual therapy. Our oversight or neglect in the matter has given the aforementioned organization an opportunity which never would have come had we, as a profession, given our personal attention to this form of treatment.

Manual manipulation, under various names, has been used for centuries as an aid in the treatment of disease and has become an established method in the practice of the regular school. Lack of time in busy professional life caused this work to be resigned almost entirely to the laity, whereby both the manual art and the medical profession have been injured.

I wish to consider the effect which the legal recognition of osteopahy has had upon the one to whom manual therapy has largely fallen, the masseur. Since the advent of this "new pathy" the work of the masseur has dwindled in comparison with previous years. The osteopath has so encroached upon the field of the masseur that it is growing difficult, in many instances, for him to make a living. The result, in many cases, will be one of two things. The masseur will carry on a practice, either openly or surreptitiously, accepting, diagnosing and treating patients, upon his own responsibility, or he will embrace the system which will, in a short time, give him the same legal standing and right to practice that we have. Instead of an assistant, we now have a lawful competitor, who is ready and anxious to draw upon our clientele. Had our competitor gained his right to practice by equal educational and preparatory standards with ourselves, we should not complain. The injustice of the case is in placing fifty per cent of knowledge on a legal parity with the standard, one hundred per cent. If this is not class legislation, then my idea of the meaning of the term is certainly very vague. Such legislation is an act to provide for the "free and unlimited coinage" of incompetent practitioners.

I would not wish it understood that I regard all masseurs as inclined to betray the trust placed in them by the physician. Many are faithful to their charge, but the profession has been betrayed by masseurs and lay helpers so repeatedly that I have come to believe that the average layman has little respect for medical ethics, unless he, in some manner, be constantly profiting by an observance of such ethics. But let there be a decrease or cessation of profit to Mr. Layman and invariably we find him willing to cast our ethics to the ground, not infrequently leaving some trusting medical man in an embarrassing position.

One marked feature of sectarian missionary endeavor is the effort to place the regular school of medicine in a false position before the public. They are constantly aided in this work by various publications throughout the country. Their continual cry is that the regular school is narrow and so restricted in its practice that its members decry all methods of treatment outside of drug therapy. So constantly and thoroughly have they kept up these declarations that the lay public come to believe them and to consider the regular school as the narrowest sect of all. In fact, it is a rare thing to find a layman who understands our position in this matter, and it even appears that many regular physicians fail to realize that the very foundation of our practice lies in its unlimited liberality regarding the choice of therapeutic measures.

As a regular physician, it does not occur to me that there is a single recognized therapeutic method that can not legitimately be used or is not being used by the regular profession. In the face of this is the continual accusation of narrowness by sects whose practice is founded upon a single or restricted therapeutic base.

It should be most helpful to the regular physician to know that there are no limitations or restrictions placed in the way when he comes to administer to his patient. In treatment he has at his disposal the accumulated resources of medical knowledge and is free to use from this source whatever he believes to be the best for his patient. It is not necessary that he become an eddyite or dowieite in order that the power of suggestion might be made to play its part in therapeutics. Suggestion is as old as disease. It always has been and always will be used as an aid to other measures in treatment.

The osteopaths have appropriated to their use an old and valuable system of treatment, claiming a new revelation, a new birth, and giving the infant, born long before Hippocrates, a new name. Should we, on this account, drop manual therapeutics from our practice? Are we to give up our heritage because they claim it as theirs? Or shall we lay hold of our own and use it, as is our right to do?

The doctor does not have to become a follower of the old English bonesetters, or of this new American edition, in order that he may practice that branch of surgery which pertains to the reduction of dislocations, but sailing under the old flag he attacks that abnormal fortress, dislocation, and reduces it.

Is the physician an osteopath when he massages the abdomen in treating atonic conditions of that region, when he manipulate the leg in treating fibrous ankylosis of the knee, or when with the hands he endeavors to stimulate nutritive processes to certain spinal segements or other areas of the body? If this makes him an osteopath now, what did it make him twenty-five years ago when he did those things? In other words, it is perfectly ethical for the practioner to use any form of manual treatment

that he believes will benefit his patient, and he should not consider it beneath his dignity to administer such treatment himself.

The time is here when we should personally administer specific manual treatment. When I say manual treatment, I have no reference to that general shampoo of the body which is given by the average rubber or masseur, but I mean that treatment that has back of it the brains of an educated medical practioner, untrammeled by sectarian isms and pathies. I mean that treatment which has as its rational foundation a knowledge of anatomy and physiology with the training that enables one to make intelligent diagnoses and an understanding of the pathology which we are called upon to correct.

On account of this education and training, the physician only is qualified for the proper use of specific manual therapy, and by its means he may enhance the value of whatever other therapeutic measures are indicated, and he should not weaken the efficacy of his line of treatment by assigning this important branch to laymen.

The basic principle upon which the practice of osteopathy was founded is: That all disease is caused by some anatomical malposition, and that the correction of such abnormality would result in a cure of the disease. Originally, the displacement of some osseous structure was considered as the causative factor, but gradually the practice was broadened and we came to hear of ligament, muscle, bloodvessel and nerve wandering from their created paths. Now, as to the novelty of this claim, there will not be so much dispute, but as to the correctness of it, intelligent members of the medical profession must unanimously dissent. To accept this so-called lesion theory as the etiologic factor of disease and a therapeutic entity is a mistake which ranks with the acceptance of the claims of all other exclusive doctrines in its absurdity. Eliminate, therefore, from osteopathy, this dislocation theory, and we have nothing in this system of treatment differing from the manual treatment advocated and in use by the regular medical profession for many years.

What is to be the outcome of this particular wave of irregularism which has swept over the country in all directions? It is evident that the means which have been used to prevent this erstwhile single method pathy from becoming intrenched around us, have failed to a very large extent. It is true that some States have succeeded in preventing them from securing recognition on their statute books, but if the past decade is any sign of the future, we may expect that ten years hence there will not be a single State holding out against their entrance.

As regular practitioners we should have the safety of the public and the interest of our profession at heart, and should look with disfavor upon anything which has a tendency to lower the standard of our broad-minded school of practice. We believe that no system or school of healing, which is so contracted as to claim that certain restricted methods are all sufficient, should recive favor at the hands of our lawmakers; for such action does lower the high standard of the profession, and its members, by placing on an equal legal footing, men ignorant or deficient, in many of the essentials relating to the diagnosis and treatment of disease. Such action is a menace to the public health, because the law says the sectarian is as competent and capable as any to treat disease. The public believe this and may choose as their physican a sectarian who, unless he be practicing under false colors, is limited in his knowledge and his treatment, and who can not, on account of such limitation, give to his patients the treatment that may be most essential. Therefore, in the interest of mankind and of the high ideals on which our practice is founded, we have felt the necessity for continuous effort in the endeavor to do away with all forms of sectarian practice. The methods taken to thwart the aspirations of the osteopathic cult for legal equality have been, in large measure, unavailing, and if the ways and means used in the past have not been entirely successful, it is reasonable to suppose that they will not be more so in the future. When, therefore, old methods fail, new ones must be tried.

A writer in the *Journal A. M. A.*, January 28, 1905, offers what he regards as a solution of the question. His idea is to establish schools which would give to laymen a two or three year course in manual therapeutics; the instruction to cover the course as given in the first two years in the best medical schools, including materia medica, the graduates to receive some professional title and be legally registered for practice. His thought is that this would give the physician a trained assistant to whom he could safely refer his patients for treatment. That this plan would be a serious mistake, I believe you will agree. It would result in the country being soon filled with the graduates of such schools, a motley crowd, half doctor, half layman. It would put into the hands of thousands of semi-physicians these valuable physical measures. We would have two organized sects, using practically the same treatment; the graduates of one school, however, recognized by law and so by the public, as physicians, while the graduates of the other school would not receive this standing. Consequently, they would not command the confidence of the public as would their competitors. This would, of course, result in discrimination in favor of those who receive full sanction of law to practice the healing art and to call themselves doctors or physicians. Those of the other school being denied this privilege and honor would suffer from the injustice of the conditions, and as it would be but a short step from their ranks to the osteopathic fold, it seems natural that there would result a marked immigration in this direction. Our proposed school would thus act as a generous feeder for this growing sect of irregulars.

What, then, is the solution of this question, for it must, and can be be solved? Let us cease referring to laymen cases needing specific manual treatment, and *let us ourselves personally administer such treatment,* for no one can do this work with such definite and specific aim as can the physician; and it is no more beneath his dignity to fortify the

treatment of a sprained wrist by intelligent manipulation, then it is for him to palpate that wrist in his effort, to determine the amount of injury to the joint, and if the physician's education and training makes him eminently fitted to diagnose the condition, it most certainly marks him, and not the masseur, as the man to treat it, and this applies to any case in which manual therapy would be of service.

As regular practitioners we have no contention as to the value of the manual method, but it is a source of annoyance to us that it has fallen into irregular channels and is used as an exclusive system. But let us not, on this account, drop such a valuable adjunct from our therapeutic column. If we had followed this plan in every case where some sect had seized upon a portion of our treatment resources and announced a new "pathy," we would by this time have been left with but a meager list from which to choose our methods of treatment. We should not be dismayed by these exclusionists who endeavor to appropriate our treatment assets by nicking off a corner here and breaking off a piece there; but let us determine to overthrow these irregular classes by a better, more intelligent, scientific and general use of the methods which they are endeavoring to wrest from our grasp. If every item in our entire therapeutic list were taken up by the profession and thoroughly taught, studied and practiced, I believe that these irregular chips off the old block would soon pass into the history of medicine.

My solution of the problem under consideration you have heard in what has already been said, but in conclusion allow me to emphasize the main thought by a brief repetition. Let us stop assigning our patients to laymen for treatment. Let the profession personally utilize every legitimate and worthy therapeutic measure. Then let it be generally known that there is always opportunity for patients to receive any recognized treatment within the ranks of regular medicine. When these things have come to pass we will see a great host of irregulars looking for a job.

SARCOMA: TEN FEET OF INTESTINE REMOVED.

Mr. H., age 22. Family and personal history negative. In August, 1905, noticed something wrong with abdomen, but paid no attention to the slight discomfort. Examination February, 1906. Painful, movable tumor at right of umbilicus. No constitutional disturbance. A few days later the tumor was on the left side.

February 26, 1906, I made an incision, exploratory or operative, and a nodular tumor mass presented in the mesentery of the small intestine. The mass was necrotic in places. The tumor was as large as two fists. The mesentery for several feet along the intestine was greatly thickened. The tumor extended quite to the posterior wall of the abdomen. The peritoneum was dissected from the posterior part of the tumor and a large branch of the superior mesenteric artery was ligated. The mesentery was then divided out to the intestine at right angles after making a double row of ligatures on each side of each divide. The tumor was then dissected loose and with the mesentery roller out of the wound. The cut edges of the mesentery were approximated with catgut. The intestine was divided in the jejunum and about six inches from the ileocecal valve. The ends were anastomosed with a Murphy button. Before dropping the intestine containing the button into the abdomen, all the exposed surfaces were bathed with a 1:500 solution of succinic dioxide. One quart of normal salt solution was left in the abdomen and one pint administered subdermally.

Patient put to bed and cracked ice ordered for thirst. Opiates for pain. No vomiting followed. On fifth day patient drank milk. On eighth day enema gave good result, all enemata previously having failed. Button passed at the end of the sixteenth day.

The microscope showed the tumor to be a spindle called sarcoma. The tape showed that we had removed ten and one-half feet of the small intestine.

September 28, 1906, seven months later, the man is apparently well and says he feels in perfect health. He eats what he likes and has no trouble with his bowels. The patient weighed 125 pounds and was short in stature. Of course we could not measure the intestine that remained, but it appeared shorter than that removed.

H. R. MARTIN, M. D.

A CORRECTION.

To the Editor of the State Journal: Unfortunately, an error has inadvertently occurred in my paper in the "State Journal" of September. It was stated that the "American Journal of Dermatology and Genito-Urinary Diseases" was divided into two periodicals. This should have been "The Journal of Cutaneous and Genito-Urinary Diseases," for it was the latter journal which was divided into two periodicals, one becoming The Journal of Cutaneous Diseases, exclusively devoted to skin affections, and the other, The American Journal of Urology, which became the official organ of the National Urological Association.

Respectfully yours,
M. KROTOSZYNER.

COUNTY SOCIETIES.

SACRAMENTO COUNTY.

The regular monthly meeting of the Sacramento Society for Medical Improvement was held October 16, 1906, at the office of Dr. W. E. Briggs, President Wright in the chair.

Present: Drs. Bramhall, W. A. Briggs, W. E. Briggs, Cox, Culver, Dufficy, Fay, Hanna, Hart, Hatch, Henderson, Henrikson, Hesser, James, Look, McGavren, McKee, Parkinson, Pitts, Poore, G. L. Simmons, S. E. Simmons, Sutliff, Twitchell, G. A. White, Wilder and Wright. Visitors: Drs. Barr of Marysville, and Turner of Sacramento.

Minutes of the preceding regular meeting read and approved. A communication was received from the Secretary of the State Society, urging that the committee to act with the legislators from this Senatorial district be appointed at once, and saying that the matter of delaying such appointments until after election, as suggested by this Society at its last meeting, was out of his hands as, under directions from the President of the State Society, about one-half of these committees had already been appointed.

It was duly moved, seconded and carried that the Secretary of this Society be instructed to notify the Secretary of the State Society that the Sacramento Society would furnish the list of names from which its committee is to be appointed at its next regular meeting, which will be after election.

Report of cases: Dr. W. A. Briggs reported a case of furuncle of the scalp treated by the Bier method and followed by a general pyemia. Dr. A. M. Henderson reported a case of carbuncle of the back treated by free crucial incision and curettment and followed by a general pyemia. A discussion followed and became general on methods of treatment of such infections.

The paper of the evening was then read by Dr. Geo. W. Dufficy, title "Surgical Hints." The discussion was formally opened by Drs. Cox and James and then became general.

E. M. WILDER, Secretary.

SAN JOAQUIN VALLEY MEDICAL SOCIETY.

The twenty-second regular semi-annual meeting of this very thriving Society was held at Fresno, October 9, 1906, and a very excellent program was presented to those in attendance.

The newly-elected officers are: President, Dr. C. T. Rosson of Hanford; Vice-President, Dr. W. W. Cross of Visalia; Secretary, re-elected, Dr. D. H. Trowbridge of Fresno.

The papers presented, most of which will appear in the "State Journal," were as follows:

"A United Medical Profession," W. E. Lilley, M. D., Merced; "Treatment of Umbilical Hernia," A. W. Morton, M. D., San Francisco; "Anesthetics and Anesthesia," C. T. Rosson, M. D., Hanford; "Tetanus—Report of a Case," A. H. Taylor, M. D., Fresno; "Cause of Gall Stones," A. B. Cowan, M. D., Fresno; "Treatment of Gall Stones," J. L. Maupin, M. D., Fresno; "Treatment of Fracture of Lower Jaw," W. W. Cross, M. D., Visalia; "Operations on Thyroid Gland," Wallace I. Terry, M. D., San Francisco; "Exhibition of Strabismus Cases," D. H. Trowbridge, M. D., Fresno.

PUBLICATIONS.

Consumption: Its Relation to Man and His Civilization. Its Prevention and Cure. By John H. Huber. Published by J. B. Lippincott Co., Philadelphia, 1906.

The above named work by Dr. J. H. Huber has been reviewed with great interest. The subject-matter is of vital interest to both physician and layman, taking up as it does the sociological and humanitarian aspects of the subject. It does this in a concise yet exhaustive manner and appeals particularly to the interest of the layman, for as the author states, "Medical science cannot cope alone and unaided with this difficult and prodigious world-problem." It would be impossible within the limits of a brief review to adequately place before the readers of the "Journal" anything like a satisfactory description of the book, for every one of the fifteen chapters, whether devoted to the scientific aspects of the subject. or to the economic, legislative or humanitarian phases, is replete with material which should engage the attention of every thoughtful reader, if progress is to be made toward the eradication of this scourge. Considerable space is devoted to sanatoria, to their construction and functions, and descriptions of many of the more important ones both in this country and abroad, are given. The author draws a graphic word picture of the extent to which phthisiophobia has run riot. Much needless suffering has unquestionably been caused because of the hysterical and foolish efforts to isolate the consumptive as one dangerous to the welfare of the public. This groundless fear is even present where one should least suspect its presence. For instance, in one of the best equipped sanatoria in England (which, by the way, the author has not mentioned in his list of English sanatoria), the chapel in connection therewith has a separate entrance and separate pews for the patients!

An interesting chapter is devoted to the work being done by dispensaries, a work which should be taken up and diligently carried on in all cities. The tenement house question is of special interest and should engage the attention of those interested in the upbuilding of San Francisco. The work of the New York Tenement House Commission is reviewed and is emphasized by illustrations taken from the exhaustive report of that body. The entire book is profusely illustrated and is probably the most satisfactory and complete work dealing with these different features of this great problem which has yet appeared. G. H. E.

SUPRAPUBIC PROSTATIC ENUCLEATION.

E. Hurry Fenwick, London, Eng. (Journal A. M. A., October 13), thinks that our present technic in suprapubic prostratic enucleation tends (1) to the destruction of the vesical orificial ring; (2) to the wholesale destruction of the prostatic urethra with its afferent seminal ducts; (3) to the rough handling of the membranous uretra. No matter, he says, how the operation is carried out, the original vesical orifice must be left intact and covered with its own mucous membrane. A negelct of this rule in a certain proportion of cases will leave the patient with a warped or narrowed vesical orifice and its attendant evils. Unless there is enough intravesical projection to afford spare mucous membrane to replace that destroyed, such will be the case. To avoid this he has successfully grafted in portions of a sheep's urethra and reports a case in which this was done. He suggests that if a medium of large projecting lateral lobe is present, that it be separately enucleated by an antero-posterior incision, and that the rest of the prostate be removed by an operation described by him in 1904, in which he starts the separation from the prostatic urethra. The forefinger is inserted into the prostatic urethra up to the first joint, the point of the finger is then bent and plunged sideways through the mucous membrane, which in the soft elastic prostate gives readily before the pressure. At once the finger finds itself between the tough capsule of the prostate and the contained adenomatous masses; traveling on without much opposition, the entire lobe is enucleated and generally stripped off the urethra. Great care is taken to keep the floor of the urethra intact and attached to its bed. Usually the adhesions of the lateral walls of the urethra and the lateral lobe are very dense; that part of the canal comes away with the lobe, but the floor is preserved. The lobe is now gently detached from the triangular ligament, so as not to tear or bruise the membranous urethra, and being free, it is pushed or pulled into the bladder; the opposite lobe is treated in a similar way. The finger finally smooths down the mucous membrane in the prostatic urethra, leaving the vesical opening clear and free from projecting tags. It heals by the structure being lined with part of the original prostatic urethra. Fenwick emphasizes the importance of not destroying the ejaculatory ducts, and also of not injuring the membranous urethra in separating the anterior face of the prostate from the face of the triangular ligament. As this is in the future true sphincter of the bladder after prostatic enucleation, it should be very gently and cautiously handled. The article is illustrated.

ALPHA OMEGA ALPHA.

A chapter of this honor medical society has recently been established in the Medical Department of the University of California. Chapters exist in the University of Illinois, University of Chicago, Northwestern University, Western Reserve University, Jefferson Medical College, University of Pennsylvania, Washington University, Harvard University and Johns Hopkins University.

The members of the California chapter are Drs. Morrow, D'Ancona, von Hoffman, Kerr, Sherman, Huntington, Moffitt, Montgomery, Taylor, Terry, Lewitt, Ebright and Blumer; of the class of '06, Drs. Hayes, Temple, Eidenmuller, Dannenbaum and Adler; and of the class of '07, Messrs. Clark, Alexander and Allen and Miss Paroni.

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EDITORIAL NOTES.

THE MEDICAL PRACTICE ACT.

Considerable interest seems to have been aroused by a decision recently handed down in the District Court of Appeal, Second District, at Los Angeles. Dr. James T. Arwine applied to the Board of Examiners for a license to practice in this State. There seems to have been some delay in the investigation of his credentials, or in acting upon them; at any rate he was permitted to take the examination at Los Angeles July 19-21. The applicant held a diploma from the University of the South, Tennessee, which the board states was issued after but three years of medical study, no credit for one year being due the applicant as under the rules of the Association of American Medical Colleges. Referring to this point, the learned justices state, in their opinion:

> "We are of the opinion, however, that the effect of this particular provision of the act is to delegate to the Association of American Medical Colleges the function of determining from year to year the conditions upon which physicians may be admitted to practice in this State; that this is a legislative function vitally affecting the rights of physicians to practice here and the rights of the people to avail themselves of the services of competent practitioners; and that it was not within the constitutional powers of the legislature to delegate such functions to the board."

The court ordered the board to issue the license as prayed. The board, however, asked for a rehearing of the case, introducing a portion of the decision of the Supreme Court in the case *ex parte* Gerino. The District Court of Appeal refused the request for rehearing and we understand that the board is to appeal the case to the Supreme Court.

THE GERINO DECISION.

In view of the close resemblance of this decision to that handed down by the Supreme Court, already referred to as the case *ex parte* Gerino, it would seem to be not amiss to quote the salient portion of that now celebrated decision.

> "It being proper for the legislature to demand some standard of efficiency, as we have seen, we think it equally within its powers to declare that it shall be the same as that required by an association composed of colleges devoted to the work of preparing persons for the profession. Evidently the standard of proficiency in scholarship as a preparation, and the particular studies necessary to secure a fair preparation, must change as the discoveries in natural science open new fields of investigation and suggest or reveal new curative agencies. The legislature can not successfully prescribe in advance a standard to meet new and changing conditions. The method adopted appears to be sufficiently definite to enable all colleges to reach the required standard when in good faith they desire to do so. The law is as fixed, definite, and certain in this respect as the nature of the subject and the object to be attained will permit, and we do not think it should be held void because it adopts the standard fixed from time to time by those who, it will be presumed, are the most eminent in the profession which it attempts to regulate, and who should be the most interested in maintaining the highest degree of professional proficiency, skill, and training."

It is seldom safe for a mere lay outsider to venture an opinion upon the law, when lawyers and jurists themselves can not agree upon its various meanings and intents. Nevertheless, we must confess to a feeling of extreme bewilderment! The Suprme Court of the State says that the legislature has the constitutional right to delegate its powers of fixing certain standards or requirements; the District Court of Appeal says that the legislature has not this right! This would seem to be a severe rebuke to the Supreme Court for so hastily handing down its opinion on this point, a few years ago. But it leaves us entirely in doubt as to which set of eminent jurists is right and which set is wrong! And now the matter will go to the Supreme Court again, and again it will have an opportunity of thinking the matter over. Will it change its mind? Even the Supreme Court of the United States has, if memory serve, reversed itself in bygone years. But whatever may be the ultimate outcome of this particular question, the balance of the law remains; if it be found that this portion of the law is not in accord with the powers of the legislature, then it will be "up to" the legislature to change that portion of the law and to

say how the standard of requirements shall be fixed. Let us not worry about the matter unduly; let us wait and see what needs must be done when the point has been finally decided.

TUBERCULOSIS SANATORIUM.

At the coming session of the legislature, a bill appropriating sufficient money for the establishment of a State Sanatorium for the Treatment of Curable Cases of Tuberculosis, is to be introduced. Our readers will doubtless recall that, under the auspices of the California Club, of San Francisco, and with the endorsement of the Committee on Tuberculosis of the State Society, a similar measure was passed by the legislature in 1905, but was vetoed by the Governor. We have not seen a copy of the bill it is intended to introduce at the coming session, but it is probably similar to the one of two years ago. It is in every way to be commended. To physicians, it seems hardly necessary to call attention to the great economic value of proper care and treatment of those so unfortunate as to be the victims of this disease. Statistics gathered by our German confreres show that, if taken in the early stages, and if these hopeful victims are subjected to the outdoor sanatorium treatment, only very few succumb to the disease. In Germany, we understand, the life insurance companies have recognized the truth of these facts and have established proper sanatoria for the treatment of those of their insured who may become tuberculotic, finding it cheaper to properly care for them and cure them, than to pay death benefits. And surely, if any State needs such an institution it is California, whose chiefest city enjoys the proud distinction of having the highest death rate from tuberculosis of any in the land. Let us by all means do everything in our power to aid the California Club in its efforts to secure the establishment of a State Sanatorium.

AMERICAN MEDICINE.

It is indeed difficult to arrive at a satisfactory determination of the editorial and business attitude of this peculiar medical publication, *American Medicine*. It was founded with the ostensible purpose of fighting nostrum abuses and freeing a trammelled and chained profession. Yet its advertising pages became so open to criticism, and the criticism was so marked and pronounced, that something had to be done. About a year ago it was stated that it could not afford to continue as a weekly publication and refuse some of the questionable advertising from which it derived a goodly portion of its income. At a meeting of stockholders, it was decided to "be decent," to throw out this money with the scarlet tint, and to make the publication a monthly, with clean advertising pages. The great mass of the progressive element in the profession, many of them stockholders in *American Medicine*, have become keenly alive to the very grave conditions existing in the profitable business of supplying sanguine physicians with cheap (?) remedies of unknown or worthless composition. This much-to-be-desired awakening has come through the inestimable services of the Council on Pharmacy and Chemistry of the A. M. A. The reports of this Council, as published in the *Journal A. M. A.* from time to time, have furnished an object lesson of the fact that it was high time such an energetic cleaning up was begun. Naturally, the questionable interests being injured by this truth-telling would like redress and would in turn try to attack or to injure the Association and especially its Council. These attacks have been many and some of them have been noted in our pages. We did not, however, expect ever to see *American Medicine* organized to fight the enemies of true medicine, lining up with the enemy, taking its place with the defenders of nostrums, and casting nasty insinuations against the Association, its *Journal* and its Council. This is indeed a bitter pill to swallow. And it is not enough that we are given this unpleasant dose to take; there is yet a worse. Casual inspection of the advertising pages of the very number of *American Medicine* in which the *Journal of the A. M. A.* is referred to as "yellow" and taken to task for printing the illuminating reports of the Council, shows that the wishes of the stockholders have been ignored. If there is any difference in the character of the advertising formerly condemned by the stockholders and that in the issue for October, 1906, it is not apparent. Here we find Gray's tonic; Labordine; Viburnum compound; vapo-cresolene; anasarcine (no longer advertised as "a cure for dropsy," however); antiphlogistine; papayans Bell (this is apparently the same concern that formerly put out an acetanilide mixture under the false claim that it was a definite chemical under the name salacetine, made into tablets called "sal-codeia, Bell"); Tyree's powder (recently shown by the Council to have been travelling under a disguised formula—to put it mildly); resinol (widely advertised to the general public); and last, but not least, our old friend "California fig syrup," which to the laity is held out as a preparation of figs, and to medical men as a preparation of senna.

OTHER PLANS.

Other journals have attacked the Association, its *Journal* and the Council on Pharmacy; other journals will continue to do so, and in other ways. Be assured that the interests opposing this present movement to try and secure simple honesty in the making and marketing of remedies intended for physicians' use, are very numerous and very rich and, moreover, are in the habit of doing their work in "ways that are dark"; indeed, they naturally shun the light. For the first time in the history of this country, a considerable number of physicians have gotten together in the formation of medical societies and in supporting the American Medical Association. For the first time in our history it is possible for any considerable number of us to know what is being done and to participate in any particular kind of work or undertaking. So long as that condition remains, so long as the A. M. A. and our component societies remain strong and active, the members taking an intelligent in-

terest in what is going on for or against their best interests and those of their patients, just so long will the fight for decency, honesty, and truth be a successful fight. The hope of the man whose profit is in dishonesty, is that discord may be brought about. With a profession divided into warring units, he can succeed; with a profession united in harmonious societies, all working for the common good and the public benefit, he can do nothing—he is forced to be honest or quit. Let no inuendo blind you to the actual facts and the truth in this whole matter. Every member of the House of Delegates of the American Medical Association who has attended the sessions of the Association for any considerable number of years, knows that there never was a time when the Association was so harmonious as today. The cries of "dissension," of "boss rule," of strife and conflict, of lack of harmony, all come from those who would most desire to see such conditions and are trying to bring them about—but, fortunately, their efforts thus far have been without result. Where is there a state association that has a journal with any particular ax to grind? We have watched the course of the state journals very carefully, and so far as we have been able to observe, they one and all are striving to promote and increase harmony and to disseminate truth and honest information of value to the members of the societies. They are more than loyal to the American Medical Association, for they realize what it is doing. Their editors see somewhat of the nastiness of the nostrum business and are sometimes, inadvertently, entangled in it. Let not inspired articles in biased publications disturb your peace of mind.

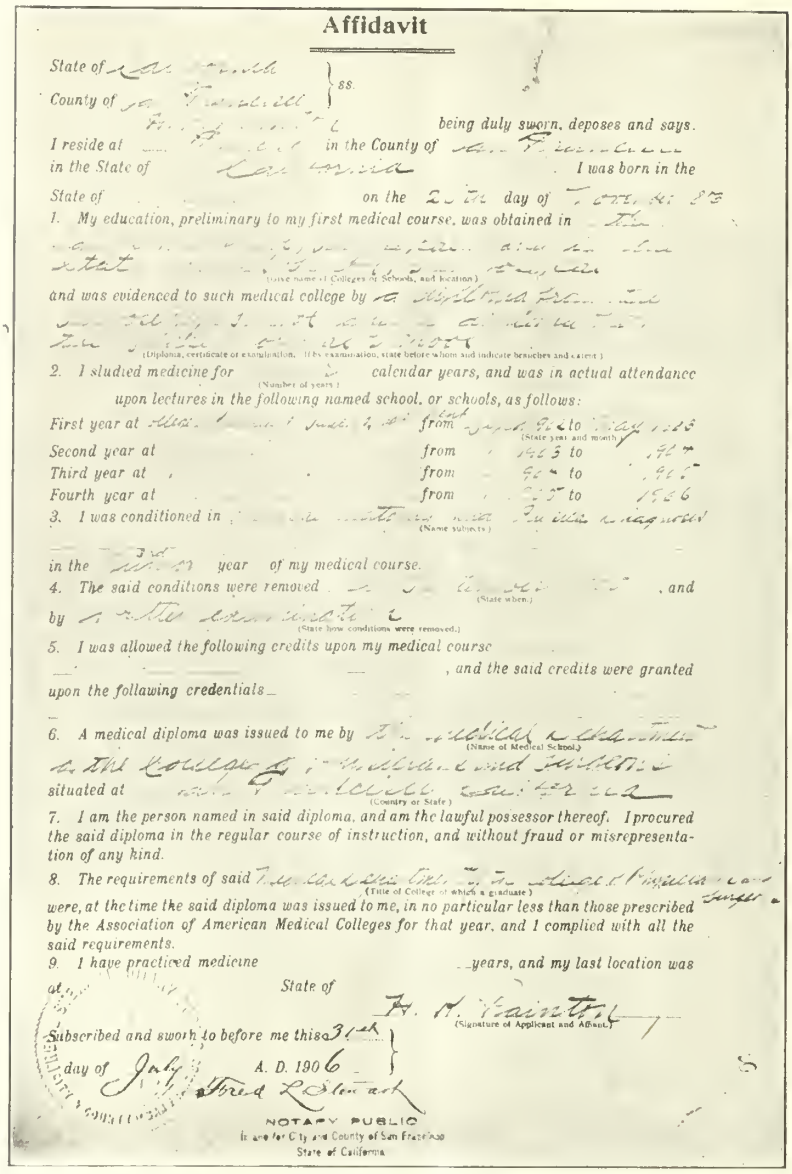
STUDY OF SEXUALITY.

No honest student of human nature, least of all no physician with a love for his fellow man, can deny the extreme value and importance of a careful and systematic scientific study of the profoundest of physiological forces. A long list of names might be quoted of those who have devoted years to this work and have advanced our knowledge tremendously. Yet, owing to the very nature of the subject and the loathness of individuals to tell of their intimate personal lives, progress toward a fuller understanding of some phases of sexual psychology and pathology, is very slow. One of the most recent contributions to the subject is by J. Richardson Parke; "Human Sexuality." (See our Publications department in this issue.) There are legitimate treatises on this subject, and there are illegitimate contributions; to our mind the work in question belongs to the latter class; indeed, in some respects it is decidedly an offense to offer such a work to scientific men as a scientific treatise. Flippancy and vulgar comment, have no place in scientific discussion. But justice demands that the author be given credit for his strong plea for a more careful study of sexual inversion and kindred phenomena, by our judges and our lawyers. Is a victim of senile dementia to be harshly treated and condemned as a criminal for acts which he himself, were he sane, would abhor? Has not the careful work of Lombroso, Krafft-Ebing, Ellis, and others, shown to any careful student that there may be and sometimes is, if the expression may be permitted, a normal abnormality; a normal inversion for the which the unfortunate individual is not to be held personally responsible? This is one of the subjects which our brothers of the legal profession might with great profit to humanity, study more carefully than they do. Aside from this modicum of commendation, the book in question is to be unhesitatingly condemned.

IRREGULARITIES IN MEDICAL SCHOOLS AND THE NECESSITY FOR THE INVESTIGATION OF CREDENTIALS.

In the *Journal of the American Medical Association,* September 1st, 1906, appeared a letter from Dr. Dudley Tait, a member of the Board of Medical Examiners of this State, in which he called attention to the improper graduation of a man by the name of Painton, by the College of Physicians and Surgeons of San Francisco. As the board, some time ago, decided to co-operate with other boards in investigating and reporting any irregularities found in medical schools, with a view to publication of any irregularities found, and as the case reported by Dr. Tait, in the journal and at the time indicated, resulted in correspondence questioning the accuracy of the facts therein, the STATE JOURNAL considered it advisable to thoroughly investigate this matter. We therefore present to you the facts in the case together with the evidence. The essential portion of the original communication in the pages of the *Journal A. M. A.* is as follows:

> "May 17, 1906, H. R. Painton graduated from the Medical Department of the College of Physicians and Surgeons, San Francisco, and was given a diploma duly signed by Dr. Winslow Anderson, president, and Dr. D. A. Hodghead, dean of said college. July 31, in the office of the State Board of Medical Examiners, H. R. Painton filed his application for a license. In his affidavit mention is made of four consecutive annual courses at the above mentioned school, 1902 to 1906. Inspection of the annual announcements of the College of Physicians and Surgeons showed H. R. Painton's name in four different numbers, thus corroborating the applicant's sworn statement.
>
> Further research, however, developed the following facts: H. R. Painton taught in the grammar school of a neighboring county from 1902 to 1904—*i. e.,* his term of service in the capacity of teacher coincided exactly with the first two years of his alleged attendance at the College of Physicians and Surgeons, San Francisco. Confronted with the above evidence, H. R. Painton admitted having filed a false document, and gave his college attendance as only two courses. The value of H. R. Painton's faculty-bedecked di-



Affidavit

State of ... } ss.
County of ... }

... being duly sworn, deposes and says.

I reside at ... in the County of ... in the State of ... I was born in the State of ... on the ... day of ...

1. My education, preliminary to my first medical course, was obtained in ... (Give name of Colleges or Schools, and location)

and was evidenced to such medical college by ... (Diploma, certificate or examination. If by examination, state before whom said and indicate branches and extent.)

2. I studied medicine for ... (Number of years) calendar years, and was in actual attendance upon lectures in the following named school, or schools, as follows:

First year at ... from ... (State year and month) to ...
Second year at ... from ... to ...
Third year at ... from ... to ...
Fourth year at ... from ... to ...

3. I was conditioned in ... (Name subjects)

in the ... year of my medical course.

4. The said conditions were removed ... (State when.) , and by ... (State how conditions were removed.)

5. I was allowed the following credits upon my medical course ... , and the said credits were granted upon the following credentials ...

6. A medical diploma was issued to me by ... (Name of Medical School.) situated at ... (Country or State)

7. I am the person named in said diploma, and am the lawful possessor thereof. I procured the said diploma in the regular course of instruction, and without fraud or misrepresentation of any kind.

8. The requirements of said ... (Title of College of which a graduate) were, at the time the said diploma was issued to me, in no particular less than those prescribed by the Association of American Medical Colleges for that year, and I complied with all the said requirements.

9. I have practiced medicine ... years, and my last location was at ... State of

... (Signature of Applicant and Affiant.)

Subscribed and sworn to before me this ... day of ... A. D. 1906

... NOTARY PUBLIC In and for City and County of San Francisco State of California

ploma is nil in California, but past experience authorizes me to assert its par value in any other State. There, the fraudulent product of the no less culpable College of Physicians and Surgeons, San Francisco, will undoubtedly become a stanch advocate of interstate reciprocity.

It may be asked why California recognizes schools proved guilty of fraudulent acts. The answer is found in its medical law which authorizes the board to pass on applications and not on colleges."

"On August 1st, writes Dr. Tait, immediately after having received an unfavorable report from the Chairman of the Credential Committee, and prior to the meeting of the board, Painton asked said Chairman to accept a major operative case, and retired in confusion upon the latter's refusal. The attorney for the board and the assistant secretary were in an adjoining room and heard the entire conversation."

Dudley Tait, M. D., Chairman Credential Committee, State Board of Medicila Examiners, 1879 Sutter St.

Dear Doctor:

The undersigned committee beg leave at your convenience to confer with you relative to the case of Mr. Painton. An early reply will be greatly appreciated.

Very truly,

(Signed) F. W. Lux,
J. M. Stowell,
Francis Williams,
Com.

(Copy.)

F. W. Lux, M. D., City.

Dear Doctor:

We shall be pleased to meet your com-

mittee at the office of the Board of Examiners, Wednesday, Oct. 17th, at 1 p. m.

Very truly yours,

DUDLEY TAIT.

The stenographer of the board was present at the interview arranged in the foregoing letters, and her transcript of the essential portions of the interview is as follows:

"October 17th, a committee of three (Drs. Lux, Stowell and Williams), representing the College of Physicians and Surgeons, San Francisco, interviewed the president of the board, its attorney and the chairman of the Credential Committee, in reference to the rejection of H. R. Painton's application. Said committee stated that: First—One year credit was given Painton on his Normal School diploma. Second—That he had taken two summer courses of three months each (June, July, August, 1902-03, 1903-04), and done some work during the holidays and occasionally at night. The committee stated that it brought no official documents, but could verify its statements with the dean's records. Questioned as to the duration of Painton's summer courses, all three mebmers of the committee were positive that they covered three months each (June, July, August, sometimes extending over into September). Thereupon, the Credential Committee exhibited the certificate of the superintendent of schools of San Mateo County, giving Painton's term of service (1902-03, 1903-04) in said county, as ten months and ten days yearly. If the balance of the year had been employed at the College of Physicians and Surgeons, it would represent only one month and a half of study, yearly."

The certificate referred to is as follows:

Redwood City, Cal., Oct. 9, 1906.

Dr. Dudley Tait, San Francisco, Cal.

Dear Sir:

The following is the information asked by you in reference to the terms taught by H. R. Painton in this county:

July 1, 1900—June 30, 1901—Pescadero Dist., 9 months 18 days.

July 1, 1901—June 30, 1902—San Bruno Dist., 9 months 8 days.

July 1, 1902—June 30, 1903—San Bruno Dist., 10 months.

July 1, 1903—June 30, 1904—San Bruno Dist., 10 months 10 days.

Very respectfully yours,

E. M. TILTON,

Co. Supt. Schools.

The conclusion of the interview, according to the stenographer's transcript, is as follows:

"Dr. Tait—As far as the board is concerned, the Painton case is closed. The only evidence before the board was the applicant's affidavit, and said affidavit having been shown to be untrue, Painton's application was rejected. Painton met neither the Association nor the College requirements as to attendance.

Dr. Lux—Does the board recognize work done in the summer instead of in the winter (regular term) or the work done at night instead of the day?

Dr. Tait—The board has recognized the diplomas of certain Chicago schools holding courses either entirely at night or in the summer only. In both of these institutions the time requirements of the A. A. M. C. (required number of teaching hours) are met, and the courses may be considered regular in every respect. The preliminary course at Rush Medical College is mentioned in several recent applications, but always in addition to the regular course of seven or eight months. Under the California statute, the diploma must have been obtained in the regular course of study.

Dr. Lux—What would you advise, Dr. Tait?

Dr. Tait—Our functions are judicial and not advisory.

Dr. Lux—But unofficially, what would you suggest in Mr. Painton's case?

Dr. Tait—That he secure a diploma in the regular course of study.

Dr. Lux—You mean, to take two more years?

Dr. Tait—Whether or not, in two years from now, the board will accept the application of a self-confessed perjurer, I am not prepared to state. One thing, however, is certain: Painton was not qualified to enter the junior class. No single member of the board is authorized to give an opinion. The law states clearly 'That it shall require six affirmative votes to carry any motion or resolution, to adopt any rule, to pass any measure, etc.' You should communicate with the board."

The following written statement of work done by Mr. Painton is said to have been left with the Credential Committee on October 17th, by the committee of three from the College of Physicians and Surgeons:

"The amount of work he did, the conditions represented and work done at college: He matriculated there in March or April, 1902. Graduated from San Jose High School '95, State Normal '98; he received educational diploma 1900 or 1901. Work done at college; matriculated March or April, 1902. Summer course 1902, 3 months, June, July and August. He took the practical physiology of 1902-'03, 9 months time, 3 hours a week, 8 to 11 Saturday morning. During his vacation times, including Thanksgiving, Christ-

mas and Easter, he stated 4 weeks time in which he put in his days. Summer course 1903, 4 hours in the morning; afternoon in dissection. Also vacation 1903-04 the same as '02 and '03. Put in summers 1904 and 1905 at the City and County Hospital. In leisure time he took organic chemistry, 1904 and 1905, and also took lectures. Took the examinations in all departments, including freshman, sophomore, junior and senior.

Extract from announcement of the College of Physicians and Surgeons, San Francisco, 1902-03.

"In granting advanced standing, the requirements of the Board of Medical Examiners of the State of California and of the Association of American Medical Colleges, will be strictly adhered to by this college. Graduates of recognized literary and scientific colleges may be admitted to the second year's class. Graduates of recognized Pharmaceutical, Veterinary or Dental colleges may be admitted to the second year's class without examination."

Extract of Constitution of Association of American Medical Colleges.

"Article III.

"Section 5.—Candidates for the degree of Doctor of Medicine shall have attended four courses of study in four calendar years, each annual course to have been not less than thirty teaching weeks' duration, and at least ten months shall intervene between the beginning of any course and the beginning of the preceding course."

Extract of Constitution of the Association of American Medical Colleges.

"Article V.

"Section 1.—The entire course of four years shall consist of at least 4,000 hours, divided into the subjects as shown in the following table, and no college shall be recognized that falls below this standard over 20 per cent. in any one branch or over 10 per cent in the total."

Extract from the announcement of the College of Physicians and Surgeons, San Francisco, 1896-7-8-9--1900.

"Two or more partially attended sessions will not count as one full course in this college."

In 1901, the above article was made to read:

"Two or more partially attended sessions *of other colleges* will not count as one full course in this college."

Pages 13 to 22 of the college announcements for 1902-3-4 specify in detail the work (lectures, recitations, quizzes, etc.) covered by the Autumn, Winter and Spring quarters, and show that the only work done during the "Summer quarter" related to practical and clinical courses.

Painton was granted a certificate by the Nevada board one week after his credentials had been rejected by the Credential Committee of the California Board Oct. 16. Secretary Nevada board "feels safe in saying the board will revoke his certificate."

The following letter indicates that the secretary of the Nevada board was correct in assuming that Painton's license would be revoked:

"Carson City, Nev., Nov. 11, 1906.

My Dear Dr. Tait:

I am pleased to state that by a unanimous vote of the board the certificate issued to Dr. H. R. Painton on August 6th, '06, was revoked on Nov. 5th, 1906.

Sincerely yours,

(Signed) S. L. LEE,
Secretary,"

Other instances of irregularity in the College of Physicians and Surgeons, San Francisco, taken from the records of the State Board of Medical Examiners, the major portion of which records were destroyed by fire:

1901. J. M. Stowell was granted a diploma by the College of Physicians and Surgeons in 1901. Under the rules then in force he was entitled to one year credit for the degree of A. M., but attendance at the "regular course" from January to July, was compulsory upon all students. Official documents in the possession of the board indicate that J. M. Stowell was principal of the Hester High School, San Jose, from 1896 to 1900 (July to June annually.) It would thus appear that J. M. Stowell had had but one regular course, 1900 to 1901. J. M. Stowell in his application for a certificate made oath that his diploma was procured in the regular course of instruction, without fraud or misrepresentation of any kind. The annual announcements of the college during Stowell's alleged attendance contained the following: "Two or more partially attended sessions will not count as one full course in this college."

1903. C. W. R. Von Radesky was granted a diploma after less than one complete course. He claimed the title of M. D. at the time of matriculating, but his credentials consisted principally of an osteopathic license; had been prosecuted by the Board of Medical Examiners for illegal practice of medicine in Alameda. The Dean of the College of Physicians and Surgeons admitted to the Credential Committee that Von Radesky had no other credentials, and that he was "a bad one." Von Radesky's diploma was accepted by the Nevada board.

During 1904 the California Board found that several diplomas had been granted by the College of Physicians and Surgeons after only three annual courses. The applications of all such graduates, none of whom was entitled to advanced standing, were promptly rejected by the board. In consequence, some took an additional course, either as instructor or student, in the college, while others sought more favorable fields in neighboring States.

1905. Hilda Simon graduated after only three years' attendance, one year credit having been

granted her "for knowledge of massage" (statement made to Credential Committee by several classmates). She filed her application in Washington and secured a certificate. Subsequently the Washington board detected the fraud, but their medical law does not authorize revocation under such circumstances.

1906. Edna B. Northey, an Osteopath, graduated after only three years' attendance, and applied in Washington for a certificate. Upon investigation by the Secretary of said board, Dr. Northey admitted having had only three courses, claimed no college degree, and stated that "Dr. Winslow Anderson had advised her to say nothing of these facts in Washington." The Dean of the College of Physicians and Surgeons claims that Dr. Northey signed the register "graduate of Epworth Seminary, Iowa," at the time of matriculating, and that after investigation he gave her credit for one year. The Recorder of the University of California, and the Commissioner of Education, Washington, D. C., fail to find any Seminary by that name conferring the degree of A. B. as claimed by the Dean in question. The Washington board has rejected Dr. Northey's diploma. Recently Dr. Northey agreed to enter an Eastern college and conform to the four-year requirements.

A. V. Guntz failed in three major sophomore subjects at Cooper College, and was requested to repeat that year. He forthwith entered the junior class of the College of Physicians and Surgeons and was graduated two years later (1906).

C. S. Harris and Frederick Leach failed in seven sophomore subjects at Cooper College, were admitted to the junior class of the College of Physicians and Surgeons and graduated two years later *i. e.*, at the same time as their former Cooper College classmates.

K. Watanabe graduated from a fourth rate Japanese medical college, at that time unrecognized by the government and to which pupils of the Sixth grammar school grade were admitted without examination. The College of Physicians and Surgeons admitted him to the senior cass in violation of the association rules requiring students to meet the entrance requirements before being granted advanced standing, and allowed him an interpreter.

C. S. Sweezy failed, in 1903, in freshman anatomy, histology and chemistry, at the University of California. He was admitted to the sophomore class at the College of Physicians and Surgeons, San Francisco, and graduated in 1906.

The 1906-7 announcement of the College of Physicians and Surgeons, San Francisco, contains the following:

MATRICULATION.

> "In the Medical Department the applicant must present a diploma from a recognized high school or its equivalent, or be examined by an appointee of the State Board of Medical Examiners."

C. F. Swanson, F. A. Wilkins and A. C. Coit were admitted to the Freshman class of 1906, notwithstanding the fact that the official examiner of matriculants had pronounced their credentials "worthless."

THE PRONATED FOOT AND ITS CLINICAL SIGNIFICANCE. *

By SAXTON T. POPE, M. D., Watsonville.

The object of this paper is to direct attention of the general practionier to a neglected subject; that of static deformity of the foot.

Lovett, Whitman, Bradford, and others have demonstrated that the pronated foot is a common affliction, and productive of much trouble, but, exclusive of orthopedic surgeons, apparently few clinicans know of its existence. Yet so prevalent is the condition that 20 per cent of the applicants of the nursing school at the Massachusetts General Hospital, suffer in some degree from this deformity.

Patients continually present themselves to the physician, suffering from vague distress in the feet, cramps in the legs, leg ache, and back ache, painful ankles, knees or hips, all referable to deformity of the foot, yet the real condition goes unrecognized, and the patient is given drugs and liniments, and informed that he has rheumatism.

Probably it is true that the average practioner recognizes pronounced flat-foot when he sees it, and knows that a certain amount of discomfort attends it. But there are preliminary stages to talipes valgus, in which no sinking of the bony arch has occurred, but where certain anatomical relations of the foot are so distorted as to interfere with the mechanics of locomotion, and to cause pain. In these stages, the average practioner does not perceive the real cause of the trouble.

Figure 1—Normal feet of country boy, 14 years; from a photograph.

These several distorted relations of the foot can best be grouped under the most characteristic attitude, that of pronation. The foot is capable of flexion, extension, adduction, abduction, supination and pronation. This latter, is a composite movement in the ankle joint and astragalo-scaphoid joints, produced normally by the contraction of the peronei muscles, or in the act of walking on uneven ground. But where abnormal elements enter into the mechanics of weight bearing, either from a weak or distorted anatomical structure, or unusual stress and trauma, the movement of pronation becomes characteristic of the deformity, and typifies the weak foot. The ultimate result of pronation is talipes valgus.

If we search for the etiologic factors of pronated feet, we find most prominent, infantile rickets, malnutrition from exhausting diseases, various nerve

* To have been read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

lesions, improper attitudes in standing and walking, misshapen shoes, haelus valgus, and valgus ankles. The exciting causes are prolonged standing, excessive weight bearing and traumatism.

Figure 2—Pronated feet of a young woman; from photograph.

Probably the greatest predisposing element is the modern shoe, which invariably produces halux valgus, thereby distorting the proper leverage of the tarsus, and relaxing the flexor longus pollicis tendon. In this one act, the arch has been robbed of its strongest support. The osseous and ligamentous elements of the arch, do not constitute its strength. It is the muscular support from above that makes it capable of bearing its great burden, and the principal muscles having this function are the flexor longus digitorum, and the flexor longus pollicis.

The predisposing factor second in importance to the bad foot gear we wear, is the perverse habit of turning out our toes, while walking and standing. This entails an error in the mechanism of locomotion, and throws the weight of the body in a line that crosses the natural weight bearing structures at an improper point, and favors the weakest posture of the foot—that of pronation. Add to these, the diminished sole area found in the average shoe —and characteristic of women's shoes—the excessive standing and carrying of burdens incident to civilization; the many injuries to which the foot is subjected; and we sum up the principal casual factors.

The distress attendant upon pronation of the foot, is due to a variety of unnatural relations; interosseous ligaments are stretched; articular cartilages are compressed in abnormal ways; muscular fatigue is induced, each of which singly, or all combined, may compromise the patient's comfort. The first signs of a change are not in a descent of the bony structure, but in inward rotation of the astragalus and scaphoid. The londitudinal arch lengthens as the foot assumes a position of abduction. Later, the internal malleolus descends, and the outer edge of the sole becomes everted. This approaches flat foot. Yet in the initial stages, the plantar surface in contact with the ground, as shown by the foot-print, gives no sign of a flattened arch.

But if, in addition to the foot-print, an outline tracing of the foot be made, so that the line represents a perpendicular dropped from the overhanging foot, it is quite apparent that a definite alteration from the normal has taken place. If in an outline tracing of the unspoiled foot, a line be drawn from the inner side of the heel to the inner side of the head of the first metatarsal, it will be

Figure 3—The line of pronation.

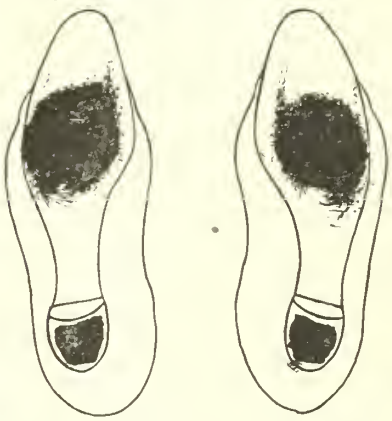


Figure 4—Shoe print; overhang, sole and ground contact.

found that the tuberosity of the scaphoid, dropped perpendicularly, practically falls upon this line. In pronated feet of all degrees, the tuberosity of the scaphoid, dropped perpendicularly, always falls without this line. This can be taken as a rough criterion of pronation.

At this stage of the progressive deformity, manifold symptoms arise, though not all pronated feet produce pain. In fact, few patients know that there is any defect in the foot, itself, and no person will admit that he has incipient flat-foot—that is an aspersion. Of all the complaints, the most common is that of fatigue. The sufferer often removes his shoes to ease his feet.

The next in frequency, probably, are paresthesiæ, circulatory disturbances, and sweating.

Pain, if it be present, generally occurs at night after going to bed; later, it is experienced when on the feet in the daytime. This may be—First: About the inner portion of the medio-tarsal joint; Second: About the outer half of the medio-tarsal joint; Third: Beneath the internal malleolus; Fourth: In the metatarso-phalangeal joint of the great toe, or it may be diffuse over the metatarsal and phalangeal joints, and radiate down the toes. In this position, it is sometimes known as Morton's painful disease of the foot; Fifth: There may be vague

pains across the dorsum or in the heel; generally pressure upon these areas produces pain.

Pains of this nature might arouse the suspicion of the most obtuse clinician, but it is not so obvious, though equally valid, that static deformity of the foot produces cramps in the legs, painful ankles, and monarticular arthritis of the knee and hip, and that pronated feet are a frequent concomitant, and probably accessory to the condition of chronic villous arthritis of the knee. It has lately been demonstrated by Schwab and Allison (in the *Journal of A. M. A.*), that pronated feet are partially responsible for the ataxic gait of tabes dorsalis.

Figure 5—Normal imprint; country boy's feet.

In that interesting disease, characterized by red, swollen, painful toes, radiating pains in the feet, and arterio-sclerosis of the tibial arteries, known as erythromelalgia, flat foot is rather a common coincident.

But it is not the relations which it bears to unusual diseases, that should engage our attention so much. What we should know is that many of the trivial discomforts of the lower limbs have their origin in pronated feet. Sherman states the equation: "Foot strain is to leg ache and back ache as eye strain is to head ache."

In an attempt to relieve the patient of his deformity and distress, naturally our measures are orthopedic. The first requisite is to restore, as much as possible, the function of the great toe. In extreme hallus valgus, of course, this is possible only through osteotomy. In the average case it simply necessitates the wearing of a shoe having a straight inside line; manipulations that tend to straighten the crooked digit; dressing the feet in socks having a separate compartment for this toe, and in the more extreme cases, placing a toe-post, or leather sleeve in the shoe. Besides this, the patient must practice adduction, by the voluntary contraction of the adductor pollicis muscle. As a practical aid in the attempt to restore the lost function of the hallux, it is of advantage to have the patient wear in the house, the common Japanese sock and sandal.

Secondly: The flexor longus pollicis, and the auxilliary supports of the arch must be strengthened by rising high upon the toes, repeatedly, and later by an act of springing upwards. Walking upon the outer edge of the feet is good practice. Then the four square position must be assumed in standing, and the toes pointed straight ahead in walking, contrary to the improper abduction, which is so prevalent.

The shoe, itself, should be of that shape that has a straight inner line, a full, rounding toe, low, broad heel, and, in addition, have the inner edge of the sole and heel, slightly elevated by a wedge between the soles, and the heel extended forward under the arch.

Figure 6—Pronation. Foot print of a young woman.

As a direct relief of the patient's discomfort, at first, rest should be enjoined; hot and cold douches to the feet; and where pain exists, a steel arch support is permissible, as a temporary help. Though this latter gives great comfort, it does not cure the deformity, and must not take the place of gymnastics. The patient must be taught to regain the strength through exercise.

Whitman plates, to be made correctly, should be shaped on a cast iron form of the foot. Still, the average plates, put out by the manufacturers of orthopedic supplies, serve the purpose fairly well. From time to time, this arch support must be raised, as the foot improves; eventually, it should be discarded. In the aged, probably the foot can not be strengthened sufficiently to abandon the support.

As a corollary to the foregoing, it can be said that the practice of medicine should consist in the perception of the nature of disease, rather than the administration of drugs; that all such meaningless words as rheumatism should be discarded from medical nomenclature since it is universally conceded that acute multiple arthritis is an infectious disease, and that the joint involvment probably represents but a phase of septicemia; that so-called chronic rheumatism does not exist, but that those painful conditions, thus designated, may be classified under at least twelve different pathologic entities; and that one of these dozen affections, often called chronic rheumatism, in the lower extremities, is entirely dependent upon static deformity of the foot.

DIET IN DISEASE.*

By GEO. K. ABBOTT, M. D., Loma, Linda.

The wide difference of opinion, not only among the laity but also among the members of the medical profession, in regard to the natural and best dietary in health has given rise to so many theories and dietetic fads that it is not possible to come to any conclusion as to a proper dietary by the consideration of such. Our natural inclinations and in many cases perverted appetites play such a strong part in our views of the subject that even what constitutes a food calls forth much discussion. Inasmuch as disease is but a perversion of normal conditions, we very naturally derive many of our ideas of a diet for disease from our theories or practices of diet in health. For surgical and other bed cases we prescribe very definitely the diet, but with ambulatory patients we are prone to leave the matter of diet to the judgment of the patient or with only very brief and indefinite instructions.

Putting away all dietetic fads, let us at once come to a rational and scientific basis for diet prescriptions. It is needless to dwell on the importance of the subject in hand. It has too long been neglected altogether in the minds of many, or given a minor place among various therapeutic agencies. Ready-made or text-book prescriptions for material medication do not meet the mind of the accurate therapeutist. He cannot be satisfied with what some one else has given in a disease of similar nature. By a careful inquiry into the etiology, pathogenesis and status presens of each case presenting itself for relief or cure, the physician is enabled to formulate a line of treatment suited to that particular individual. The patient should be treated, not the disease. It is just as essential to have an intimate acquaintance with the forces in the armamentarium of diet, as it is to understand fully the case itself.

A definite concept of the composition and physiological action of tinctura digitalis or balneum Nauheim; their mode of producing the desired effect and the duration of such effects, are not of more importance in the therapeusis of cardiac incompetency than is the same knowledge of food in the treatment of digestive disturbances, constitutional or other diseases affecting general metabolism. The student is taught from exhaustive texts the knowledge gained from animal experimentation with alkaloidal substances. But he derives his knowledge of dietetics mainly from a very brief course in physiological chemistry and food analysis, without any reference to the physiological effects produced by foods in ordinary use. And even this is considered of such slight importance that when he begins the practice of medicine his advice very clearly shows that he is depending upon his own personal preferences, or giving the matter even less consideration. He simply says, "Eat what you like, and as much as you like."

As in the management of cases otherwise, consideration of the symptomatology and findings of physical examinations and chemical analysis, furnish the data by which prescriptions are formulated. Then, as we bear in mind the chemistry and action of medicines to be prescribed, we must by just as careful a consideration of the chemical composition, physical structure and digestibility of the foods to be used, provide a dietary for the case in hand. The diet prescription must be concise and definite. Patients should be instructed as to the time, regularity and number of meals, as well as the amount and variety of articles to be eaten at each meal. And probably of still greater importance they should be made to understand that thorough mastication and insalivation of foods are absolutely essential to the complete digestion of every particle eaten. The psychical element and other nervous conditions require regulation as well. For the above reasons the dietetist may derive the most benefit from the study of such works as those of Pawlow on the "Work of the Digestive Glands," and Hutchinson's, "Food and Dietetics." The former as an aid in diagnosis and the latter in a standard of composition and pharmacology of foods, if one may use such a phrase; and both together as a scientific basis for therapeutics. Our own personal prejudices or opinions must give way to the sounder logic of scientific investigation, and deductions from the observation of the carefully applied principles derived therefrom. The simpler the dietary the more readily can such observations be made.

The laity need to be educated in common sense views of the subject that they may lose their fascination for things whose properties are shrouded in mystery. Persevering work in the line of diet will aid in lessening the harmful addiction to "patent" medicines, of the origin and composition of which the consumer knows nothing. Education is an essential part of the physician's duty to the patient. By it we enlist their co-operation and secure better results than otherwise. Yet we are prone to neglect it. Possibly because such gross ignorance is so frequently met that one becomes pessimistic of ever being able to instil common sense on medical subjects into minds where superstition reigns. Many otherwise intelligent people have almost no conception of the composition or value of foods.

In every case the patient should be treated on the individual merits of his own condition and not as one of a class. Just so in prescribing diet. One must thoroughly examine from every standpoint and prescribe accordingly. But to make progress at all it is necessary to generalize to some extent. For this purpose we may briefly consider: 1. Methods of investigation; 2 and 3, prescription-making and the general classes to be treated. In coming to a definite conclusion in regard to defective digestion or faulty metabolism one must inquire most minutely into the previous habits of the patient, not only in one particular, but in all the habits that make up life. In stating a thing a patient is very likely to say for instance, that he indulges in alcoholics moderately. This can mean but little, while the kind of beverage taken and the number of glasses a day gives a definite idea. The history

* Read before the San Bernardino County Society, Feb. 14, 1906.

of digestive disturbances in infancy or childhood are of great importance in tracing the course of diseases of the stomach and intestines in the adult. The foundation for gastrectasia, hypoacidity, catarrh of the gastric or intestinal mucosa, amylaceous dyspepsia, and possibly acute articular rheumatism and other arthritic diseases, as well as many functional diseases, is laid in this period. Much might be said in regard to the effects upon severe infection of defects in metabolism. It is coming to be more generally accepted that acute articular rheumatism is an infectious disease, at least one predisposing cause of which lies in the production of lactic acid by gastric or intestinal fermentation. Without any preconceived ideas of the subject, we have found that all, or nearly all, cases of rheumatic fever give a history of a previous chronic indigestion. This is usually of an asthenic type, slow digestion with low acidity and motility below normal.

Modern civilized and especially American social conditions have brought about very gross errors in diet. The trend of rural to urban populations has led to the neglect of active out-of-door exercise. The average business or professional man allows to lie dormant, or with only slight exercise, most of the muscles of the body. The neglect of walking is in many cases the most important, if not the only cause of constipation and its ensuing train of symptoms. In the rush of business a lunch is hastily eaten and office work resumed immediately after the meal. The blood current is diverted from the stomach to the brain and nervous system, thus decreasing the pabulum for the formation of digestive fluids, and robbing the stomach of the mild massage produced by moderate after-dinner exercise. The twenty minutes for lunch gives the business man only time to bolt into his gastric reservoir a sufficient quantity of such imperfectly masticated food as to produce in a very short time an excessive secretion of hydrochloric acid, with its ensuing heartburn and other disagreeable symptoms. Or if continued, to utterly tire out and discourage even so faithful an organ as the stomach, which then fails to produce the normal quantity of hydrochloric acid, pepsin, and rennin. Or with his mind entirely upon business affairs the psychic element is so far wanting that the digestive glands produce almost no fluid.

Pawlow's experiments with the esophagotomized dog, and the dogs with gastric fistula, in reference to the effects of appetite on gastric secretion, are too well known to need repetition. The conclusion reached however, is of such importance that it cannot be too often repeated. The proteolytic ferment of the gastric juice produced solely by the presence of food was but one-fifth the total strength of the same produced by the excitation of appetite. In the first place, as with the fasting dog, there must be a real necessity for food. That is, the organism must have torn down tissue by work or some other means so that there is an urgent desire for food. In the second place food must be prepared in an appetizing way and made palatable. The psychic factor is of far more importance in the stimulation of secretion than the chemical properties of the food ingested.

A very striking illustration of the psychic effect has been brought out by the experiment of Bickal related in the German Medical Weekly. A dog with a Pawlow fistula and opening into the esophagus was worried by a cat while he was eating. The amount of gastric juice produced during sham feeding ranged usually between 100 and 190 during the hour following sham feeding, gradually declining to 80 by the end of the second hour. When a cat was brought in a cage into the room and placed beside the dog while he was being fed, he became very much excited and angry, and only 20 cc. of gastric juice were secreted during the first five minutes afterward. Examination at five-minute intervals showed that the secretion grew constantly less and less to practically zero at the end of half an hour. The inhibiting effect of an emotion on the gastric secretion persisted even after the cause for the emotion had been removed. The cat was left in the room only a few minutes, but the secretions were evidently permanently checked for that time by the dog's temporary excitement.

As shown by Pawlow's experiments, the normal organism very remarkably adapts itself to varying amounts of single food elements, and even simple combinations of the three food elements. But the diseased organism finds it very difficult to adjust its action to correspond with the solid intake of a six or eight course dinner, together with the varying kinds and amounts of beverages. The digestion of three or four articles taken at one meal is a comparatively simple matter in health. But the elaboration of digestive ferments in the proper amount and strength to meet the conflicting requirements of six or eight dishes and not all of these of simple composition, is frequently an insurmountable obstacle to even the moderately deranged stomach. Simple diet obviates many difficulties. In this fact lies the success of such fads as the milk diet, raw food diet and others. These principles when rationally applied would certainly lead to more success than when applied to every case without discrimination. Over-indulgence in proteids and sweets produces harm where over-indulgence in fats would not. Excess of proteid gives rise to congested and irritated emunctories; excess of carbodydrates the alimentary glycosuria, obesity, and gastrointestinal catarrh. The application to mucous membranes of such substances as would on the skin be classed as epispastics, produces a similar condition internally. Mustard, pepper, ginger, and the chili sauces are all of this type. At first they produce in the stomach and intestines the same condition and symptoms as are produced in the mouth. In the stomach they cause an increased secretion of hydrochloric acid and mucus. The latter as a protective measure. By repeated use the gastric glands are worn out before the mucus cells and a condition of gastric catarrh results. Some one has advanced the theory that shutting off the lumen of the appendix from the cecal cavity by swelling of the mucous membrane, is due to particles of such substances forced into that organ and remaining, causing congestion, and later inflammation. May not this be true in *some* cases? It at least seems probable.

The patient should be questioned very closely in regard to his habits of diet, eating, amount and

kinds of food, also as to the number of meals a day and the hours when eaten. A very good plan is to ask the patient to give a list of the foods and beverages, and the amount of each used at several meals previous. After having obtained a full and complete history of the case it seems best to proceed with the physical examination before attempting chemical analysis.

The patient should be examined as to nutrition, present weight ascertained, and the loss or gain in weight from the time of the onset of disease estimated; general appearance of the skin, its color, presence of any disorder of the sebaceous glands, acne or dermititis should be noted. If the person is rheumatic of course the usual examination of the joints, tendons, muscles, and nerves, is made. Proceeding more immediately to the digestive organs, the liver should be outlined, size and position of the stomach determined, with the relative positions of the cardia and pylorus; also the size and position of the various portions of the colon. The strength of the abdominal muscles may be gauged by the tonicity and perhaps by asking the patient to stand and noting the degree of prolapse of the abdominal viscera. Because the patient complains of soreness and dragging sensation in the abdomen is not proof of enteroptosis. After having examined these organs on these points and others which will suggest themselves in particular cases, one may know which of the chemical and microscopical tests are necessary.

Methods of gastric analysis are quite well established, but the condition of the salivary ferment is frequently neglected. Before the test meal is given the patient may be asked to chew a small piece of soft paraffine for a given length of time; 3 or 5 minutes will serve as a very good standard. All the saliva secreted is put into a bottle, subsequently measured and tested by means of a starch solution of known strength; 20 cc. of a ½% starch solution are placed in a tumbler and 80 cc. of water at a temperature of 105° to 108° added and kept at the same temperature by means of an exterior chamber of water. One cc of the saliva is then added to this diluted solution and from time to time tested by means of dilute Lugol's reagent, as an external indicator. When the test shows colorless or only light yellow of the Lugol, reaction may be considered complete. This should be reached in two or three minutes. If over that time, the saliva is deficient in ptyalin activity. Comparison of the amount secreted in five minutes, and the rapidity of starch digestion will furnish us with a coefficient of salivary activity. In those who habitually eat without through mastication or eat soft foods; indulging in beverages during the mastigation of food, this coefficient will be very low. We have frequently seen specimens of saliva which would not digest starch short of one hour, and occasionally show a blue color at the end of the hour. While all persons should be instructed to eat slowly this simple test furnishes a basis upon which to insist upon thorough mastication of food, the patient being told the condition and the means of changing it. This can be done by the stimulation produced by dry food.

The normal and foreign elements in the gastric findings are all of importance, but of special value in ordinary cases of dyspepsia is the amount of fluid the stomach is estimated to contain at the end of an hour. This together with the percent of hydrochloric acid will reveal the varying degrees of gastrosuccorrhea where the amount is in excess of about 120 cc. The total amount of hydrochloric acid may be largely in excess and yet digestion proceed very slowly when this is diluted by a large amount of worthless secretion. The methods of Mett have been found more accurate than any other in determining the proteolytic activity. The acidity due to organic acids is often of as much importance as the acidity due to free hydrochloric. Heart-burn and other distressing symptoms usually accredited to hyperacidity may arise entirely from organic acids, and are then controlled more effectually by a diet of dry bread, egg-albumen, with charcoal after meals, than by the use of free or emulsified fats and oils that are usually given in hyperchlorhydria. Having considered these tests and the various methods of ascertaining the completeness of intestinal digestion and absorption, we are in a position to make out a diet prescription for the patient in hand.

It would be impossible, in the time allotted, to consider all the diseases in which diet plays even an important part. The most important may be summarized under the head of (1) Diseases of the digestive organs, including the liver and pancreas; (2) Diseases of general or special metabolism; (3) Diseases of the kidneys and (4) Fevers.

In case of anacidity even without marked dilatation the digestion is so slow and the motility so much decreased that it is necessary to put six hours between meals and interdict the third meal. For a time at least thoroughly dextrinized dry breads should form the principal part of the meal. The white of the egg, taken raw or prepared in various ways to suit the appetite, may be given once daily. The selection of fruit in these cases seems to be a matter of experiment. If the case is of long standing an acid fruit will be well borne. But more often the mild or sub-acid fruits only can be taken without distress. Pear sauce, baked apple, and prunes are usually taken with benefit. Some times the dried steamed fig affords the best results and aids in overcoming the accompanying constipation. Greens, as lettuce, celery, and later, spinach, are well borne and seem to very favorably influence the secondary anemia and obviate scorbutic tendencies. Anacidia once established is rarely changed, probably because it is the result of sclerosis of the gastric mucosa. But the nutrition may be greatly benefitted by a carefully regulated diet continued for months or years.

In gastrectasia there is usually a gastrosuccorhea. The gastric juice contains an excess of hydrochloric acid, but so diluted as to be far below the normal per cent, and even greater intervals must elapse between the meals. The two-meal system is absolutely imperative. An occasional gastric lavage may be required to prevent the decomposition of food, to relieve the headache and general malais. Patients should not be encouraged to resort more frequently than necessary to this means, as the use of warm water in large or small quantities in the stomach

tends to increase the difficulty by its relaxing effect. No beverages can be allowed at meal time, nor nearer than one hour before or three hours after. Fruit and fruit juices which ferment easily must be proscribed else a condition of mild alcoholic stupor results. Meat must be prohibited because of the decomposition which results from the stay of five hours or more in a medium which has so little germicidal action. Because of the quiet and recumbent position at night an evening meal may still be found in the stomach in the morning. The pyloric stenosis prevents the emptying of the stomach. Or because of the decreased motility, the gastric contents will remain for several hours with even a normal pylorus.

In a condition of hypochlorhydria with deficient proteolytic activity a sherbert or fruit ice taken twenty to thirty minutes before a meal will prove an effectual stimulant. Or the same may be accomplished by an acid fruit, such as orange juice taken at the beginning of the meal. These measures may be aided by the use of half a cup of a hot beverage at the close of the meal, but never during the meal, at least not while food is being masticated.

Hyperacidity is of two types, viz:—hyperchlorhydria, which is often of nervous origin, and, second, excess of the acids of fermentation. It is always difficult to distinguish these from the symptoms alone. In the former, oils and emulsions inhibit the secretion of acid. The habit of using sodiumbicarbonate for this condition cannot be too severely condemned. It relieves for the time being, but does not alter the condition for the better. Nor does the use of large quantities of proteid in the form of meats, eggs, beans, etc., prove a benefit. These take up, or rather, use up, the acid in their digestion, but at the same time stimulate the oxyntic cells to produce a freer flow of acid. This very diet together with condiments may have been the cause of the condition. Eating slowly and perfect mastication of food are never more essential than here. All acid fruits must be left off, and possibly fruit discarded altogether for a time.

In amylaceous dyspepsia with gas formation, the proteid intake should not be decreased, or to only a limited extent; while the starch must be thoroughly dextrinized and given in dry breads and in less than the usual quantities. Honey is better than cane sugar in these cases. This is true of all forms of defective carbohydrate digestion or the imperfect oxidation of sugars. Possibly this is due to the fact that honey does not require inversion. It seems more rational to us to allow thoroughly cooked starches in diabetes than to entirely proscribe carbohydrates, and certainly yields better results than the Von Noorden system. In the latter the body is clogged with an excess of the products of proteid metabolism, and poisoned by the absorption of toxins from its decomposition in the intestines. Fats and oils, free or emulsified will largely take the place of the proteid which it may seem so necessary to give.

The dietetic treatment of obesity and its opposite, malnutrition, is often secondary to general measures, even though the one may require a decrease of alimentation and the other an increase. That obesity is due more to deficient catabolism than to increased alimentation seems to us to be very evident, whether or not the patient has indulged in alcoholic beverages. Alcohol is not the only toxic agent that decreases catabolic activities. The alcohol of autochthonous origin may be as much a cause in proportion to the amount produced by fermentation. These conditions so effectually elude investigation that we speak of them as diatheses, and prescribing salicylates, etc., fail to give attention to the diet and general habits of the patient.

In our hands chronic inflammatory rheumatism and all gouty diatheses receive more benefit from a careful and persistent regulation of the diet and general habits of life, then from all the alleged "uric acid solvents" known. We would entirely prohibit meat and meat derivatives, beans, tea and coffee. These last items are of fully as much importance as the decrease of the proteid elements. The caffeine is so nearly like uric acid that the system seems to be unable to change or more completely oxidize it. Not only so, but the symptoms of nerve irritation, headache, neuralgia, insominia and restlessness of neurasthenia, and tenderness of the sympathetic ganglia, are kept up by them long after they might otherwise have disappeared by the use of general treatment. Rheumatics, especially if obese, are benefited by what might be called a starvation diet, or fasting. This may be practically accomplished by a diet consisting very largely of fruit. Some cereals and fresh garden vegetables will, of course, be included. While citrus fruits may seem ideal from a theoretical standpoint in maintaining the alkalinity of the blood, yet a condition of excessive acidity of the stomach is so frequently present that oranges cause distress and must be left out of the diet. Both eggs and milk may be allowed. Raw and soft boiled, or poached eggs, or the whites in the form of egg-nog, with fruit juices or cream, are more readily digested than hard-boiled eggs. The egg-nog is especially good for those of very weak digestive power. Many physicians prohibit eggs because they are supposed to give rise to uric acid in one of gouty tendency. When taken as mentioned and in moderate number this certainly cannot be the case. Simon makes the statement that pseudonuclein, of which egg-albumen consists, cannot form uric acid; that it is *nuclein* which furnishes uric acid and that neither milk, nor eggs contain it. If milk is not well borne for any reason, cream, buttermilk, or Koumiss may be used. Olives and olive oil will take the place of proteids to some extent and act favorably upon the constipation which may accompany rheumatism and is so frequently obstinate in these cases. Honey is beneficial because of its laxative properties.

In the dietetic management of both rheumatism and nephritis and all digestive disturbances, much may be gained by attention to food combinations. There are three food combinations which seem especially bad. A food is often discarded because of this disagreement, when if taken alone, or with other things, would give no trouble. Sugar, with milk or cream, at the same meal and especially when mixed, are almost sure to produce fermentation. Mushes are rendered even more harmful by the addition of sugar and cream. Acid fruits with milk produce indigestible curds, and in the end give

rise to fermentation. Cream, with milder fruits, is not so objectionable because of a greater per cent of fat and therefore less tendency to form curds. Again, milk, when taken alone, may form large curds while if taken with a cereal preparation would be broken up into smaller pieces. Fruit, with the coarser vegetables,—cabbage, turnips, carrots, etc.,—produce both gastric and intestinal fermentation if taken at the same meal. Fruit digests very quickly, while cooked cabbage, because of the cellulose fiber, requires three or four hours. The fruit will ferment before the cabbage can be digested. This fermentation and gas formation is continued in the intestines.

There is much that might be improved in the diet usually given fever patients. In pyrexia, all the tissues of the body are subject to increased oxidation. There seems to be a more than proportionate break down of the proteid elements. The urine is loaded with urates while at the same time the system guards against the taking of proteid in any but very small amounts by decreasing the peptic ferment and acid. The digestion rebels against any but the simplest albumens, and this condition is continued well into convalesence. Gluten from 20 to 40 per cent variously prepared in gruel or bread may be given throughout the course of a fever. For children and especially infants, the cereal waters are preferable, but as an exclusive diet cannot be continued long. Egg albumen can be used in almost any case, either raw or soft cooked. It is of special value where other foods are not palatable. Meat broths and extracts may be considered principally as gastric stimulants. Their food value is exceedingly low. In the former it does not exceed 1 per cent by the analyses of Hutchinson, while the extractives predominate and to them is due the stimulating properties. Meat extractives and dextrin are the two strongest chemical excitants to the secretion of hydrochloric acid. But to offset this in the case of meat extractives is the added amount of waste matter taken into the system and consequently increased work thrown on the kidneys. In acute nephritis or the nephrites complicating scarlet fever, typhoid fever, etc., this is no small item. Typhoid bacilli grow most luxuriantly upon bouillon, multiplying more rapidly than in any other medium. Of course the bacilli which do the most harm are those in the intestinal mucous membranes. But an increase in number in the intestinal contents may produce reinfection of the lymph follicles and mucous membrane generally. Dr. F. X. Walls, in a paper read before the Chicago Medical Society condemned the use of milk in infectious diseases of intestinal origin, for the same reason. He referred more especially to its use in treating children. But milk cannot be said to be quite as good a medium for germs as meat broth. The fact that many epidemics of typhoid fever, to say nothing of diphtheria and the exanthemata have been traced to milk infection, should lead us to look upon it with disfavor. The milk of larger cities is allowed to pass unchallenged if the bacteria do not exceed 50,000 to the cubic centimeter. If the stomach produced a normal per cent of acid these would give no trouble. But in fever the acid is very low or altogether absent and the bacteria multiply without hindrance. Since the nutrient value of both meat broths and milk is far exceded by egg albumen and liquid preparations of the cereals and gluten, it would seem that they are entirely unnecessary.

If a non-toxic intestinal antiseptic is indicated, as it certainly is in typhoid fever, nothing could be better than fruit juices. Three minutes in pure lemon juice will render innocuous the culture of any pathogenic germ. This property is shared to some extent by all fruit acids. Tympanites is greatly decreased and largely obviated if fruit juices are given early in the course of the disease. Scraped apple, well cooked pears and peaches, and in fact the pulp of almost any fruit may be used. It goes without saying that berries are not included because of the seeds. The juice of the lemon and orange may be variously prepared or the latter given pure. Fruit acid not only makes an ideal intestinal antiseptic, but also serves the purpose of a refrigerant. The alkaline base of the organic acid or acid salt aids in maintaining the alkalinity of the blood, and the oxidation and elimination of the acid products of proteid metabolism is materially aided thereby. While no set diet list can apply to all cases, this has given us the best results.

These rather scattering rmarks leave almost untouched the subject of diet in chronic Bright's and diabetes. Though an almost thread-bare subject, yet it is one of nearly daily importance to the physician in general practice. He finds it difficult in the ordinary home to regulate the menu of his patients. For this purpose a classified diet list will serve to control the range of foods. If desired the amounts of each article may be written in.

To summarize, the points of paramount importance are:

1. The correlation of facts shown by physiological experiments upon the digestive organs with the results of food analyses.
2. The application of the principles derived from this study.
3. The advantages of simplicity in diet.
4. Insistence upon strict adherence to the diet prescription, not only for the time being but for weeks or months, in chronic cases.

WILFUL DECEPTION IN A CASE OF HYSTERIA.*

By EDWARD W. TWITCHELL, M. D., Sacramento.

A little over four years ago, in a paper read before the Sacramento Society for Medical Improvement, I endeavored to draw the attention of the local profession more sharply to those cases of deception in the hysterical which were conscious or wilful, and therein to be distinguished from involuntary or subconscious simulations where the patient was deceived as well as the attending physician. Detailed mention was made of a case reported by Rothmann and Nathanson in the Archiv fur Psychiatrie und Nervenkrankheiten Bd. 32 Heft. 1, 1899, of a patient who simulated chyluria by injecting milk or cream into the bladder. I wish this

* To have been read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April 18, 1906.

afternoon to relate an instance of deception in many respects as remarkable, although not so baffling.

The patient in question, Isabella G., age 9 years, is a native of California, of Italian parentage. Both parents are neurotic, the mother particularly so, but both in very good physical condition, as they had always been. A brother died at the age of 4, reputedly of brain fever. Other children are healthy. The previous history of the patient is uneventful.

On January 9, 1905, the family physician was called. The apparent condition was that of general weakness, and anemia with complaint of chronic constipation and of thirst. No symptoms referable to the nervous system were remarked. The attendant prescribed a liberal diet, an organic preparation of iron and sodium phosphate.

January 21, 1905. Condition is much the same. Attention was directed by the parents to the scantiness of the urine. Treatment remained unchanged. January 25, 1905. Constipation increases, no movement of the bowels without aid of castor oil. Eats but little. Passages are small and dark. Urine is still scanty. Temperature is 98.2, pulse 90 and weak. Prescribed infusion of digitalis.

January 30, 1905. Improvement noted. Pulse and temperature normal. Treatment continued unchanged.

February 19, 1905. Physician was called again, the parents complaining that she urinates scarcely at all, and eats nothing. Urinates but once in 24 hours. Was catheterized twice in following 24 hours, about two ounces of urine being obtained at each time. The odor and color of the urine were good and the result of further examination was negative. At this time a new symptom developed, viz., a cough which was practically constant, keeping up hour after hour. For at least 36 hours the patient was without sleep. Chest examination revealed nothing. The parents were assured that the cough was of a nervous nature, and chloral and bromide were ordered.

February 24, 1905. Cough continues as before. Catheterized daily, but only a few drops of urine gotten each time.

February 25, 1906. A consultant was called. It was suggested that some cerebral condition accounted for suppression of urine, and the continued cough. Cocaine and nitrate of silver were advised for local application to the pharynx. The consultant examined the ears and asked if there had been any bleeding therefrom, which there had not been. That same evening the child's handkerchief was flecked with blood which she declared to have come from her ear. There was no blood in the auditory canal.

February 26, 1905. Was called in consultation myself. The cough this day was not quite so aggravated, but still existed. Suspecting the nature of the trouble to be hysteric, I counseled removal to an adjacent hospital and complete isolation from the family. This was accordingly done, but the strain upon the patient and the mother was so great that after a few hours at the hospital a reunion was effected and the patient went home. None the less, the policy of ignoring her was carried out pretty well at home.

February 27, 1905. About this time, discoveries began to crop up. Wet spots on the carpet were found to be due to urine. Some urine-soaked rags were found concealed under the bed. A large paper bag, which should have been full of raisins, was empty. This accounted for the apparent fasting and the dark stools. The patient vigorously denied urinating surreptitiously and eating the raisins. But the cough ceased abruptly.

March 3rd. Was found yesterday to have urinated into the coal hod. By order of the physician food was put in convenient places and the parents left the house for some time. On their return the food was gone, but the child could not be induced to eat in the presence of others.

March 22nd. Has improved very much, but still urinates secretly.

April 13th. Decidedly better. Has urinated normally for the past two weeks. Has confessed that she got blood from her wrist to feign bleeding from the ear, and that she had urinated onto rags and about the room for the purpose of deceiving those about her. From this time on recovery was rapid and ultimately complete so far as the condition complained of was concerned. Within the past month the family physican has reported her as in perfect health to all appearance.

Now, such cases are by no means rare enough to report on account of rarity, but it seems to me that in the present instance there are several points worthy of particular attention. In the first place, the age is unusual. There is a precocity out of the ordinary that induces a child of 9 years, of illiterate parentage, to feign a train of symptoms worthy of a practiced hysteric of 30 years of age and luxurious surroundings. It goes without saying that such precocity is pathologic and is akin, as will occur to many of you, to that facility in deception which enables a child of like age and station to go into the witness stand and tell a circumstantial tale of attempted rape which is either a product of her own imagination, or the result of suggestion and training on the part of a vicious adult. The skill and pertinacity of the child in sticking to the original tale in spite of all efforts of the physician or the cross-examiner to confuse her is marvelous. These examples are to be sharply distinguished from those in which the child herself is deceived and believes implicitly in the truth of her assertions. I do not think that this distinction is sufficiently pointed out. For some, all such simulations are wilful and the unfortunate hysteric is looked upon as a liar from choice and without reason. There are in fact two mental states, which while objectively identical, are subjectively far apart. The innocent simulation originates subconsciously, as a result of the patient's abnormal suggestibility. She has no conscious part in the deception, of which she is the victim as well as those about her. The deliberate deceiver is, however, wide awake. The emotions are chiefly at fault. With all such individuals there is a craving for attention and notoriety. They are self-centered to an extreme degree, having but the haziest perception of what is outside of the sphere of their own world, and but little care therefor. The all-important thing to them is the gratification of self. Every chance is seized upon, which offers an increase of attention. This morbid craving for notice leads them to the use of all means, fair or foul, for the accomplishment of their ends. Hence the exaggeration of existing symptoms, the invention of new ones and the prolongation of illness.

The evolution of a symptom complex is interesting to trace. In the present instance, the patient began with a real debility of uncertain nature. A complaint of thirst induces the physician to examine the urine, which happens to be scanty and this is remarked upon. This imbues the patient with a desire to make the symptom more pronounced and anuria shortly follows. A passing cough arouses the anxiety of the parents, and the cough is accordingly aggravated to the "nth" degree. Repeated

urging to take food brings on fictitious fasting. Examination of the ears by a consultant, is rewarded in the second attempt by finding the external ear smeared with blood. And so the patient piles Pelion on Ossa until the family circle is well-nigh distracted. These things are usually facilitated by the stupidity, born of anxiety, of other members of the family, or, what is very common, by the skillful aid of a confederate, for there is an *esprit de corps* among the psycho-neurotics and one gladly lends aid to another for the discomfiture of the Philistines. It is astonishing to see to what length a neurotic mother, sister, aunt, or cousin, will go in helping on the deception of the rest of the world.

In the righteous explosion of wrath which follows the exposure of these wiles, we must not allow ourselves to forget that the state of mind that permits such things to be, is morbid. This is no mere mischievousness, and as such is not to be spanked out of them. The will of such individuals is so subservient to their powerful emotions that they have little control over actions which the normal individual would inhibit. Hence the impropriety of punishment as for a misdemeanor. What amounts to harshness must be sometimes applied, but it should be done sympathetically as the knife or the cautery are used in surgery, for cure, not for punishment. The danger of inappropriate treatment is not so great here as in the case of innocent simulators. Threats of operation usually bring them to their senses before the operation begins. In Rothmann and Nathanson's case a proposed trepaning brought the patient out of a trance. On the other hand, there is no question that many unconscious simulators submit to unnecessary operations. I have for my part, in one case at least, saved a patient from such an operation, which was about to be undertaken in perfect good faith by the operator and with full consent of the patient. Subsequent history amply justified the interference. There is many a bottled appendix or ovary whose only offence was that it was the object of too much attention from its owner. So the importance of recognizing these cases is evident.

In deliberate deceptions, recognition is tantamount to cure. Once the physician, and, what is likewise of importance, the family, are convinced of the true nature of the symptoms, and take measures accordingly, they will soon be rewarded by a tacit or spoken confession from the patient, and the rest is easy. In spite of the simplicity of these cases, once the light is let in on them, they can prove a source of immense trouble if allowed to go undetected, and all practitioners should be well alive to their existence, and look sharply for flaws in the statements of any patient whose malady savors of the extraordinary.

Finally, as to the justifiability of the diagnosis of hysteria, in this particular instance, it may be objected that these are not sufficient grounds for the basis of such a diagnosis. For my part, I think they are, but that really cuts very little figure, so far as the main issue is concerned. Whether hysteria, or neurasthenia, the psychology of such cases is the same, and the boundaries of hysteria are not so well defined as those of Lake Tahoe. Anesthesia and hysterogenic areas, especially in children, are no more essential to hysteria than are rose spots and diarrhea to enteric fever. Mental stigmata alone are often sufficient.

REPORT OF THE 17th AND 18th CASES OF COCCIDIOIDAL GRANULOMA.

By PHILIP KING BROWN, M. D., San Francisco.

I desire to place on record two more cases of coccidioidal granuloma diagnosed during life and observed in the service of Drs. E. R. Bryant and H. G. Cates, of Los Angeles. The disease has been diagnosed during life a number of times before, but the increase of it among the working class in the San Joaquin Valley, renders its importance so great that an early diagnosis of the trouble seems especially necessary in view of the fact that the well established cases invariably die. The case of Dr. Samuel Gardner, with local lesions in the ankle, which resulted in his promptly amputating the leg after diagnosis, is the only case that seems to have been entirely cured.

The disease presents so varied a picture that lesions of an unusual nature anywhere in the body bearing resemblance to syphilis or tuberculosis and occurring especially in people from the San Joaquin Valley should suggest this disease. To a person familiar with its varying picture, particularly where there are skin lesions, culture tests do not seem to me absolutely essential to the diagnosis, although in the present stage of our knowledge of the disease, it is extremely important that the diagnosis should be corroborated by culture experiment.

In addition to the report of the two cases, I have added a brief summary of the cases thus far reported, including three not yet published, which were reported by me before the Association of American Physicians last summer.

The following two cases were observed in the Sisters' Hospital, Los Angeles, in the service of Drs. E. R. Bryant and H. G. Cates.

Case 17. Examined July 10, 1906. K. Naka Shima. Age 28. Native of Japan. Has been employed at track work by the Southern Pacific in San Joaquin Valley, for some months preceding the entrance to the hospital. He was referred to the hospital for treatment because of pain in the neighborhood of one of the ankle joints, accompanied by a swelling and some redness. The diagnosis of rheumatism was entertained at first, and a gonorrheal complication was also suspected. These conditions were ruled out after close observation and the administration of salycilates, and on the appearance of anterior cervical adenitis. The ankle lesion, as well as the glands, went on to suppuration and were surgically treated, all being healed in 7 to 10 days. In the course of a few weeks further abscesses appeared in the vicinity of the former ones, and one appeared upon the face over the malar bone and another above the eye-lid. There was apparently

* Read before the Association of Railway Surgeons, San Francisco, August 22, 1906, with presentation of Case 17.

	SITE OF INITIAL LESIONS	DURATION OF DISEASE	Residence in San Joaquin Valley	EXTENT OF DISEASE
I.	Skin	7 yrs.	7 months	Lymph glands; disseminated nodular lesions in internal organs.
II.	Skin. Local 9 yrs.	Several months.		Lymph glands; many skin; chronic abscesses; old scars and consolidated areas in lungs; chronic nodular pleurisy; nodules in diaphram; circumscribed chronic nodular peritonitis beneath diaphram and in pelvis; peribronchial and retroperitoneal glands; spleen, adrenals, prostate, both epididymides, testes, seminal vesicles; osteomyelitis in left tibia and metacarpal bone of left hand.
III.	Skin	3 mo.		No autopsy. Regionary lymph glands certainly involved and signs of general infection.
IV.	Lungs	10 mo.	Yes.	Skin; abscess of lung extending up into neck and abscess of liver; lymph glands.
V.	Lungs		Yes.	Osteomyelitis and periostitis of frontal bone and both tibia; suppurative inflammation of right shoulder; both knees; elbows and wrists; abscess from lung extending into mediastinum and diaphram; liver; retroperitoneal lymph glands; kidney; spleen.
VI.	No clinical history probably lungs.		No history	Lungs; pericardium; spleen; kidney; meninges.
VII.	Probably lungs.	3 1-2 mo.	12 days shortly before onset.	Meningitis.
VIII.	Skin. No clinical history.		Yes.	Lung, spleen, liver, kidney and adrenals.
IX.	Skin	Observed 4 mo. Discharged improved.	Several months.	Skin of foot; inguinal and cervical lymph glands; abscess anterior abdominal wall.
X.	Internal	Still alive 2 years later.	Several months.	Osteomyelitis, foot.
XI.	Internal	Supposed to be alive.	No, but lived in Sacramento Valley.	Abscess of ribs.
XII.	Internal	Few months	Several months.	Caries at elbow; probably meninges.
XIII.	Wolbach, Jour. Med. Research XIII, 1904. Clinical history unpublished.		Lived in California.	
XIV.	Lung	11 months	4 months.	Multiple abscesses of lung; erosion of sternum; pleurisy with effusion; abscess of sacrum, wrist, kidney. Warty nodule on end of nose.
XV.	Intestinal tract.	2 1-2 mo.	5 months.	Abscesses with caries of the adjacent bone in the right supraclavicular region; left sternoclavicular articulation; left supraspinous fossa; dorsum of right hand; right ankle; mediastinal glands; peribronchial glands; general involvement of the peritoneum with enlarged mesenteric glands; ulceration on right thigh; left forearm and over right zygoma; on chin.
XVI.	Internal, probably lungs. Hill-Montgomery	3 years	2 1-2 years.	Lungs; skin; multiple abscesses connected with bone.
XVII.	Internal	8 months	Yes.	Patient still living. See history.
XVIII.	Lungs.	3 months	Yes.	Patient stil living. See history.

Summary: Initial lesions, skin 5; unknown, 1; internal, chiefly lungs, 12; total. 18.
Residence in San Joaquin Valley; positive, 14; no history, 3; negative, 1: total, 18.

no connection with the bone. Patient is said to have gained in weight. Temperature was never above 100°. There was a slight cough. No epididymitis, but a vague history of specific disease. In this condition I saw the patient with Dr. Cates and through his kindness was given an opportunity of examining a fresh abscess in the ankle region which the doctor opened. The growths shown are sub-cultures from the pus obtained from this abscess. No connection with the bone could be made out by probing and Dr. Cates stated that he had been unable to detect any connection in any of the abscesses already opened.

At the time the patient was exhibited, six weeks later, there were no new developments except evidences that some of the healed surgical wounds in the neck were ready to open again from pus accumulation beneath.

Case 18. Examined July 10, 1906. Thomas Chiltis. Age 24. Native of Greece. Lived in this country 3 years and in the San Joaquin Valley 18 months. His initial symptoms began about June 15, 1906, in the left side, low down in the axilla, with pain similar to pleuritic pain. His pulse was 92; temperature normal at this time. Shortly after this there was a breaking out on the scalp and face, pustular in character. The pain continued in the side just above the spleen and for the month following he slowly developed pain in the substernal region, worse in the mornings. On July 10th that was the seat of the greatest pain. His temperature had been extremely irregular ranging at times to 105°. His pulse varied greatly, following the temperature and rose from 65 to 120 in the course of a day. Quinine was administered with relief of the temperature which was probably a malarial complication. The patient had no gland enlargement or pain or abdominal lesions. There was a slight progressive loss of weight. The chief symptom at the time I saw the patient, was referable to the skin from the forehead, where there was a slight outbreak covered with crusts, underneath which a small amount of pus was present. The lung condition was still more interesting. Over both lungs, front and back, loud moist rales were heard. There were irregular areas of dullness to quite an extent. I was not able to obtain a specimen of the pus of this case before he left the hospital, and the diagnosis is not confirmed by culture or microscopic examination, but the case seemed to me a typical one of this disease in which the lung symptoms were most prominent, and the skin lesions quite characteristic.

PROPRIETARY MEDICINES AND THEIR ABUSES.*

By GEORGE DOCK, M. D., Ann Arbor, Mich.

Proprietary medicines are substances which some one has an exclusive right to make or sell for medicinal purposes. The exclusive right may depend on secret methods of manufacture, or on a patent on the method of preparation, as in Germany, or on process and substance both, as in America, or on a copyright on the substance. A patent on the name, or a copyright, is one of the most effective methods of acquiring and mantaining exclusive rights in the case of medicines whose virtues are fictitious, though secrecy is in some cases equally effective, for a time.

Proprietary medicines are not either good or bad by reason of their origin. In the language of the day, none are "ethical" or "unethical" *per se*. The possibility of greatest danger occurs among secret preparations and depends partly on the fact that secrecy regarding a remedy may have more serious consequences than secrecy in the manufacture of steel or rope and many other indispensable articles. The chief objection is that no dependence can be placed on the constancy of action of such substances, and that no certain comparisons can be made of observations on their action. They are not fit for scientific deductions.

There is no essential difference between proprietary medicines advertised exclusively to physicians and those advertised to the general public—the former in medical periodicals or special circulars, the latter in newspapers, handbills or almanacs, or on rocks, fences and barns. These are, perhaps, more frequently of secret composition, but recently this difference has been abandoned with great ostentation by some makers of so-called "patent" medicines. One or the other may be honest in intent and harmless or even useful in effect, just as either one may be fraudulent in conception and dangerous in use. The same lawless nomenclature is followed in both cases, the euphonious or hideous, outlandish or suggestive names being much alike in all. As a further evidence of similarity, a preparation that begins most blatantly in newspapers or on fences may in time find a welcome in reputable medical journals, and, on the other hand, a remedy first advertised to and used by physicians may in time be advertised in newspapers or form the leader in a cut-rate drug store or on the drug counter of a department store.

It is difficult to discuss proprietary remedies in a comprehensive way, but impossible to specify without becoming lost in the endless confusion they present. Certain classes stand out prominently. So there are synthetic compounds, active principles and new salts, real discoveries in chemistry that may have the virtues and drawbacks of chloral hydrate, sulphonal, urotropin, of salol, codein, cocain and others. They are usually put on the market with very little preliminary testing, but with the most sweeping claims. There are mixtures of these with other substances, sometimes representing an advance in pharmacy, often not. Then, there are preparations, whose chief recommendation is that they are of pleasing appearance or taste—"elegant," in the language of practical pharmacy. Though no more efficient than plainer preparations, they seem capable of filling a useful purpose, but are often hampered by secrecy of composition or unfounded claims of far-reaching therapeutic action. Expensive advertising and lavish distribution of "samples," neither of which should be necessary in legitimate trade, enormously raise the price at which these are sold.

It is unfortunate that the laws and customs of ownership do not permit a clearer separation of va-

*From the Journal A. M. A.

rious classes. There is a deep-seated objection on the part of most physicians, to the taking out of patents on such inventions as instruments or drugs, but it seems to me that this attitude is wrong in principle and partly responsible for a good deal of the demoralization now obviously existing. I am speaking, of course, of genuine discoveries and not mixtures or formulæ.

It is a curious and paradoxic fact that no objection is made to physicians taking out copyrights on books, yet there is no essential difference. In the present organization of society, it is not only legal, but natural and proper, that any one making an invention or discovery of value should be able to realize a material return for his pains or ingenuity, and this right can best be preserved by patent. Jenners and Pasteurs will doubtless continue to investigate without hope or expectation of gain, for the love of experimentation, and will achieve not only glory, but also more material rewards, but that is no reason for checking inventive talent of a lower order. The man who invents a new dye may make a fortune. Why not the man who invents a drug that will do for pneumonia what quinine does for malaria?

Regarding instruments, if not protected, imperfect, imitations are put on the market. No one is benefited except the makers, who deserve only the ordinary returns for their part of the transaction. If the inventor wishes to lower the price he can easily forego his royalties and give the buyer the benefit. I do not intend to discuss the question as to the profit derived from patents on books, instruments or medicines, though there is a matter for discussion on this point, but merely to emphasize the propriety of allowing inventors or authors to control, for a time at least, the manufacture of their products. The incidental fact that the price of the article may be enhanced by the patent does not affect the question materially. Prices of medicines will always be regulated, like other commodities, by the law of demand and supply. If fashion causes an elevation of price beyond the real value of the article, as occurs with many other things besides drugs, this does not seem a sufficient reason for interference with the well-known laws of trade.

Perhaps the strongest objection against the owning of patents on instruments or medicines by physicians, but one that is rarely expressed, is the danger of abuse in ways not open to the usual objects of trade. An author can hardly stimulate the sale of a book in any but obvious ways, but a medical man, especially if he has a reputation as a scientist, might excite an artificial demand for an instrument or a new remedy. Yet the danger of this is much more likely to exist, and to a greater degree, if the ownership is disguised, as it may be now, and in fact sometimes is. Publicity in such a case, as in others, seems the most promising check to dishonesty either intellectual or financial.

So far I have assumed that a proprietary medicine may be of value. Many of the newer nostrums, some of the very ones most objectionably advertised, have not only been imitated by manufacturing pharmacists openly patronized by the profession, but have even been admitted to the Pharmacopeia with a haste not characteristic of sound therapeutics.

I do not think we realize clearly enough the enormous waste of time and energy in the trial of new remedies. Many are doomed to early oblivion, as a perusal of the advertising pages of any series of medical journals makes clear. Just as the names of nostrums advertised in newspapers and trolley cars change year after year, so do those in medical journals. Many others would disappear, but for costly advertising, which is, of course, paid for by the purchaser.

Two sets of evils follow from this ever-changing but never-ceasing flood. On the one hand, the layman has perpetuated or strengthened in him the belief in the magical properties, as distinguished from the physiologic effects, of medicines—the faith in drugs as substitutes for right living. Or, as in the development of bacterial therapy and prophylaxis, he has set up a hope, if not a trust, in the use of antibodies in place of efficient public hygiene, e. g., typhoid inoculations instead of pure water and proper sewage; antirabic inoculations instead of proper dog laws, etc., etc. Or, again, if less credulous, he concludes that the art of medicine has not principles at all, that medicines "are for readiness, and not for propriety" (Bacon).

On the other hand, the physician who follows such methods fails to increase as he should in therapeutic experience and facility. Getting therapeutic knowledge, perhaps, but never therapeutic wisdom, he drifts along, depending more on the statements of salesmen or drummers than he does on those whose interests in drugs are chiefly in their therapeutic effects, and hardly at all on his own observations. Even if observations are carefully made and recorded, the accumulation fails because of the variety of data, as in the case of a physician I know who tried some three dozen creasote preparations in as many cases of consumption in a short time, and was unable to speak confidently of any one.

The making of new preparations and the haste to try them form a vicious circle. Synthetic drugs and mixtures were poured forth in response to the alacrity with which the first ventures in these lines were taken up. As the sick layman grasps at anything in the way of treatment, so many physicians prescribe new and untried drugs, and just as every soldier in Napoleon's armies carried a marshal's baton in his knapsack, so every assistant in a chemical factory dreams of and works for a new synthetic, and many a teacher whose ambition is supposed to be centered on "gathering pebbles on the seashore of science," is working just as hard on some similar scheme. The manufacturers gladly exploit any novelty, expecting the usual profits. The medical profession, as one of the most striking examples of the triumph of Hope over Experience, keeps on accepting the discoveries, repeating over and over the story of disappointment.

The natural tendency to believe everything, not always repressed by training, is skilfully fostered by the resources of the modern advertiser. Exaggeration is inseparable from the enthusiasm of an in-

ventor and discoverer. Had it not been for the unproved assertion, based on perfect good faith, in the complete and permanent protection against smallpox, the use of vaccination would long have been delayed. There is some difference between the sanguine hopes of a discoverer and the studied rhetoric of an advertising expert, but the difference is not easy to see. In the case of proprietary remedies exaggerated claims of excellence at every point, assertions of fredom from the untoward effects inseparable from the action of remedies, insinuations of new properties and suggestions of the imperfection or uselessness of older remedies are all advanced with a skill born of keen competition.

Sometimes the assertions are so absurd that it would seem impossible for any one to pay further attention to the substance advertised, yet experience shows that this is not so. A few years ago a preparation was exploited which was claimed to contain live red blood corpsucles, which latter were alleged to be capable of entering the body of the sick man and restoring it to health. The finding of the philosopher's stone, the realization of perpetual motion, or the existence of Dowie's healing power seem as easy to accept as theorems of Euclid compared with these claims. And yet this product, notwithstanding so disreputable a beginning and a later stage less daring, but just as cloudy, has become, if not the head of the corner, at least part of the basis of many a medical journal. The claims of organic iron preparations, of intestinal antiseptics, cardiac stimulants and antipyretics are almost as bad and do not require further mention.

Unfortunately, in all these claims, the manufacturers are aided by testimonials from physicians, just as dangerous as the testimonials of governors and congressmen that fill certain newspapers. The plain puff is too obvious, and pseudo-scientific articles are published often with great luxury of illustration.

The manager of one of the most iniquitous frauds ever sold once told me with honest pride that his firm never made a statement it did not believe. I was astounded at first, but in looking through the literature I found the claim was literally true. Everything necessary to exploit the material was furnished by physicians. That the information was given gratis may be a mitigating circumstance.

There is another method of furthering the use of new preparations, becoming so widespread as to suggest a conspiracy, though the growth may be merely the result of "mob suggestion." This is the villification of critics of indiscriminate or irrational drugging. "Who is not for us is against us" seems to be the motto of drug sellers, and just as, sixty years ago, Skoda was called a therapeutic nihilist because he believed that bleeding and tartar emetic were not necessary in the treatment of people with pneumonia, so now any one who does not at once and always prescribe large and numerous doses of drugs is given the same term—and with the obvious intention of making him odious.

What are the remedies for the abuses connected with the sale of proprietary medicines and which I have imperfectly sketched in the preceding lines? To many the prospect seems hopeless. Drugs, like a mighty flood, pour out so rapidly that many are swept off their feet. Yet the situation is neither unique nor hopelessly bad. Sound, temperate Hippocratic medicine has lived through even worse phases. The physician of the sixteenth and seventeenth centuries had no coal-tar preparations and no sera, but he had more than 3,000 plants in his materia medica, not to mention minerals and animals of all kinds from worms to man, their organs, secretions and excretions. Medicine survived this, the richer by a few remedies of real value, and there seems no reason to fear that oblivion will overcome the less useful of the newer discoveries and permit the good ones to take admitted rank.

How to secure the really valuable new remedies is the problem now before all earnest therapeutists. Repression by force or enactment can never serve against such a condition. The right to investigate, to discover, if wished for to patent new remedies, need not be curtailed. Authoritative bodies, governmental or otherwise, can do much to assist in determining the status of such products, but the final verdict must come from the great body of practical therapeutists, the physicians in actual charge of sick people. Such a body as the Council on Pharmacy and Chemistry of this Association may perform an important function in making impartial examinations and reports on new substances of obscure composition, but it can not determine whether or not such substances shall be used. The American Pharmacologic Society can also carry on an equally valuable work in making further tests. But no such body can be depended on to disclose all the good things and repress the bad, and just as far as it prevents the development of the spirit of responsibility and of criticism on the part of the physician will it do harm.

Medicine has never been successful when bound down by traditions, schools and authorities. It has only flourished when it made use of every resource that science or chance could bring—whether the cinchona bark of the savage, the hydrotherapy of the peasant or the synthetic compounds of the university professor—testing all things, holding fast to the good.

I shall take the liberty of discussing briefly some of the solutions for the present abuses.

One of the most general is the exclusion of advertisements of proprietary medicines, at least those of unknown composition, from medical journals. There are some good reasons why this view should receive consideration. A scientific periodical certainly makes a more pleasing impression when it is free from all advertising. In the case of journals of a more practical tendency it is convenient to be able to find advertisements of drugs, books, instruments and other supplies, but even if classified it is difficult to find what is wanted if there is a preponderating number of notices of drugs, mostly unknown. These are particularly exasperating when inserted among the pages of text, as in some of the most reputable English periodicals. On the other hand, merely keeping such advertisements out of journals would not stop the nuisance, for the same matter, or more, would be forced on us in other

ways—sample copies, circulars and the like. Nor would the exclusion of such matter from journals be a likely aid to the morals of those who now fall victims to the wiles of the advertiser. In the practice of medicine, virtue that comes only from lack of temptation is as doubtful a quality as in other cases. Moreover, the daily or weekly appearance of an advertisement can not be sufficient reason for any competent person to patronize the thing advertised. Surely the readers of medical journals do not buy every carriage or automobile, or even every book, any more than they buy all the bargains advertised in the daily paper. Medicines, like get-rich-quick schemes, furnish a bait of unusual attraction, but both can be withstood.

It can hardly be expected that physicians will abandon the reading of journals with advertisements of nostrums, but if the goods advertised were not bought the obnoxious pages would soon disappear.

It would seem possible to exclude the most exaggerated or obviously baseless claims, but this is not so easy as might seem at first glance, as the following experience shows: In a recent number of the *Fortschritte der Medizin* there was a brief notice of a preparation loudly advertised in America, with a fling at the "credulous colleagues" in "the land of unbounded possibilities." Yet in the same number of the same journal, as in all the previous numbers, were many advertisements, to me just as bad, including one of a remedy for gout, sciatica, "all rheumatisms," influenza and nervous headaches, the same being also an expectorant useful in putrid bronchitis, typhoid and pneumonia, and a specific for whooping cough, asthma, cardiac neuoses and arteriosclerosis

A decided gain would come from a freer criticism of all kinds in our medical literature. A fear of frankness seems to bind it all—in abstracts, in book reviews and in editorials. Much of this depends, no doubt, on trade affiliations, but it seems to spread beyond them. I may be permitted to cite an example. A plain and easily controllable investigation of the claims of a widely advertised mud preparation was published in *The Journal* of the Association at my instigation. Personal communications and letters from many physicians confirm my idea that the report was one of value. Within a few days after it appeared a circular letter was issued to medical journals, giving a misleading account (though it had been believed by the writer) of the origin of the article, and requesting editors of other journals not to abstract it. The scientific statements in the article were easy to test, and were important, no matter how the article originated. Most of the periodicals, however, followed the wishes of the advertisers and the article was conspicuous by its absence from the abstract columns of the great bulk of journals.

Incidents of this kind, for I am sure the experience mentioned is not unique, indicate one of the greatest obstacles to the freedom of medical science.

Recently a very clear-minded critic of affairs has pointed out the advantage of greater frankness on the part of physicians toward patients. I think most of us agree on this, at least in the case of intelligent patients. But is there not even greater need of frankness among ourselves, and especially of plain speaking, without cant, prejudice or passion, as regards one phase of one of the greatest evil of the day—the nostrum evil?

At best proprietary remedies will continue to be made and advertised, and all sorts of claims will be made for them. We as a profession can not directly stop these things, even if we think it desirable to do so.

We can, however, learn how to use better than we do now well-known remedies and in that way lessen the use of the others. And, although we can not draw a sharp line between unprincipled time-serving or the affectation of ultramodernity, we can at least express our opinion of crude experimentation. We can assume that the physician who depends on the remedies advertised in display type is no more deserving the credit of advanced views than one who should sell his horses or automobile and buy a balloon for making his daily calls. We can look as coolly on new drugs as we do no a new phase of mental healing or a new application of massage. If this were done, production would be less rapid, the vogue of each novelty shorter, the possible virtues of some more quickly determined.

At times, no doubt, some loss would come from this attitude, as it did from the neglect of the revelations of Holmes, Semmelweiss and Lister. Yet there would be compensations. Perhaps the loss of life from the delay of accepting asepsis was not greater than that from the indiscriminate use of coal-tar antipyretics.

How can the profession be brought to a better attitude as regards the present evil? Many think the solution is to be found in more teaching of prescription writing, of lectures on therapeutics. I differ from those who hold this view. What is needed is (1) broader and deeper training in preliminary and biologic branches and the cultivation of exact habits of mind; (2) a more intense study of pathology, not merely to acquire anatomic data, but to learn the actual results and extent of the lesions in common disease, so that the student may offset speculation with fact; (3) a more intimate study of clinical medicine, that can only come from more prolonged and more personal investigation at the bedside.

In speaking of the evils of the nostrum habit among physicians do we not forget that, although we usually speak of the profession as a whole, the individuals vary enormously in capacity and opportunities for the study of medicine? Doubtless many graduates of hopelessly poor schools become sound and well-informed physicians, and equally doubtless some graduates of great schools fall into utter routinism, but is not the chief fault the existence of several scores of schools that never have given and never can give proper medical instruction?

To sum up, proprietary medicines are increasing as the result of natural developments. These abuses spring partly from the exaggeration of legitimate commercial methods, partly from the credulity of the medical profession. The remedy for this part is wholly in ourselves. Let us do all we can to overcome this at least.

PROFESSOR GEORGE BLUMER.

Dr. George Blumer, the recently elected Professor of the Theory and Practice of Medicine at Yale, took up his duties at the beginning of the ninety-fourth annual session, September 27. Dr. Blumer comes to us eminently well equipped for the position. The students of Yale Medical School are indeed well pleased to have a man of his preparation and experience as their teacher.

Dr. Blumer received his early medical instruction at Cooper Medical College of San Francisco, Cal. After graduation in 1891 he served a year as interne at the City and County Hospital at San Francisco. Next he took post-graduate work at Johns Hopkins University along the lines of Bacteriology and Pathology, also doing some work in Surgery. He continued in this study until June, 1893, when he became assistant to the surgical staff of the Johns Hopkins Hospital, Baltimore, Md., under Professor Halsted. Dr. Blumer then became assistant to the medical staff of the same hospital under Professor Osler.

In September, 1896, Dr. Blumer gave up his position at Johns Hopkins to accept the directorship of the Bender Hygienic Laboratory, which had just reached completion at Albany, New York. During the seven years at Albany he was first adjunct professor; later professor of Pathology and Bacteriology in Albany Medical College. Professor Blumer was also pathologist to the Albany Hospital, the St. Peter's Hospital and the Childs' Hospital of Albany, and to the Cohoes Hospital, Cohoes, New York. For some years he held a like position on the medical staff of the Troy Hospital and the Samaritan Hospital of Troy, New York. In 1900 he was made director of the Bureau of Pathology and Bacteriology of the New York State Board of Health.

In the Fall of 1903 Professor Blumer resigned the numerous positions held by him and went to California, where he accepted a position as Associate Professor of Pathology in the Cooper Medical College of San Francisco; he also had charge of the course in Clinical Pathology. During the session 1905-1906 he was assistant in Medicine in the Medical Department of the University of California.

Professor Blumer is a man of considerable literary experience, having written numerous articles and monographs pertaining to medical subjects, more especially pathology and bacteriology. Since 1894 he has published thirty or more different articles, the most important being on "Tuberculosis of the Stomach," "Tuberculosis of the Aorta," "Trichinosis," "Noma," "Cholesteatoma of the Choroid Plexus," "Status Lymphaticus," "Leukemia," etc. They are mostly to be found in the American Journal of Medical Sciences, The Johns Hopkins Hospital Bulletin, and The Albany Medical Annals.

Professor Blumer was junior editor of the Albany Medical Annals, 1902-1903. He is joint author of Lartigau-Blumer's text-book on "Clinical Bacteriology," published by Appleton. He is a member of the Association of American Physicians, the Association of American Pathologists and Bacteriologists, the American Medical Association, the American Academy of Medicine, the San Francisco County and the California State Medical Societies.—Yale Med. Journal.

Remember to send your change of address to the Journal promptly—2210 Jackson St., San Francisco.

A MEDICAL LIBRARY FOR SAN FRANCISCO.

By Douglass W. Montgomery, M. D.

All who love medical literature and the advancement of medicine in this city, wish to see the most made of the fine gift of the late Levi C. Lane's widow. That a combination of the County Medical Society's Library and the Lane Library would form a larger, finer foundation than either of them separately, there can be no doubt; but the start must be made properly or the combination will end in failure, and less will be gained than if such a coalition had never been attempted.

The County Medical Society must never lose its title to, and its voice in the control of its property. If the Lane bequest is so framed that its trustees must be drawn from a certain group of the medical men of San Francisco, then the County Medical Society will also have to elect trustees, who must not belong to this group, and whose duty it will be to safeguard the property of the County Medical Society. This is not intended as a reflection upon the trustees of the Lane foundation, but a device to preserve that balance of power so necessary to stability in affairs.

If the Lane foundation is so framed that its trustees may be drawn from the medical profession of San Francisco at large, then the above objection would fall to the ground, as then all would receive equal representation; and the control of the entire library would really rest with the County Medical Society, the representative society of all physicians in the county. This may look like a surrender of the Lane Library to the profession; but this is not so, for it is only good for the profession, and the entire profession may be trusted to take care of it. It may also look like an unequal bargain; for the County Society has no books, no building, and very little property except its income. It has, however, a large income, and in the future will have a very large income, for this city is bound to grow, and shortly, into one of the largest in the world; the fire, looking now like a disaster, will really make it grow all the more rapidly, just as it made Chicago grow rapidly. The County Society must see to it that this income, neither now nor in the future, is given away to an institution, no matter how admirable this institution in itself may be, over which it has no control. That control must be of such a dignity that the most sensitive member of the County Medical Society will feel honored by being appointed a trustee of it; and he can only retain this feeling by meeting his fellows in the Lane foundation on a plane of absolute equality.

COUNTY SOCIETIES.

SACRAMENTO COUNTY.

Regular meeting called to order November 20, 1906, at the office of Dr. W. E. Briggs; President Wright in the chair. Present, Drs. Atkinson, W. A. Briggs, Cartwright, Culver, Fay, James, Krull, Look, McGavren, McKee, Parkinson, Pitts, Poore, G. L. Simmons, S. E. Simmons, Twitchell, Voisard, Wilder, Wright and Henrikson. Visitors, Drs. Nourse and Fabre-Rajotte.

An application for membership in the prescribed form was received from Dr. Fabre-Rajotte, and allowed to lie over one month according to rule. There were then elected to membership Dr. E. C. Turner, Med. Dept. University of California, 1905, and Dr. M. S. Silva, California Medical College, 1897, and College of Physicians and Surgeons, S. F., 1901.

Communications were received from Dr. J. W. O'Brien, asking a transfer to Contra Costa county, which was granted; and from the secretary of the Sacramento Board of Health, asking an expression of opinion by the Society as to the advisability of having typhoid fever reported to the health authorities. It was moved by Dr. W. A. Briggs, duly sec-

onded and carried by a unanimous vote of the members present that:

"It is the sense of this Society that typhoid fever be placed on the list of diseases to be reported to the Board of Health."

Dr. McKee, senator from this district, having moved that the Society proceed to select a list of names for presentation to the President of the State Society that from among them be appointed the special committee from this senatorial district to act during the coming legislature, the Society selected and recommended for appointment a committee of Dr. Parkinson, (chairman), Dr. Fay and Dr. Hesser, of Folsom.

Dr. S. E. Simmons reported a case of myxedema with history of improvement under thyroid and relapses when it was withdrawn after the development of the symptoms of exopthalmic goitre.

Dr. McKee reported two cases of electric burn, with loss of limbs therefrom.

The paper of the evening was then read by Dr. F. G. Fay; topic, "The Climates of California."

Discussion opened on the following topics: "The Sacramento Valley and the North Wind," Dr. G. L. Simmons; "The Foothills, up to 1500 Feet Elevation," Dr. Twitchell; "From 1500 to 3500 Feet Elevation," Dr. W. A. Briggs; "The High Sierras," Dr. Parkinson; "Laryngeal Tuberculosis," Dr. W. E. Briggs; "Deserts," Dr. Henrikson; "Catarrh," Dr. McGavren; "Elecrification," Dr. James; "The Central Coast," Dr. Wilder; "San Diego and Southern California," Dr. Poore; "The Open Sea," Dr. Hanna.

E. M. WILDER, Secretary.

SONOMA COUNTY.

At the meeting held September 13, 1906, Drs. Victor d'Ercole and L. W. Battle, both of Petaluma, were elected to membership in our Society. At our meeting November 8, 1906, at Dr. Bonar's residence, Dr. Z. Turner, of Eldridge, was elected to membership.

Drs. Bonar and Fay gave us good papers on "Practical Medicine" at our last meeting, and Drs. Jesse, Bogle and Mallory at the September meeting. Dr. W. J. G. Dawson, at the meeting on the afternoon of October 9th, entertained us. At every meeting we are having banquets. I do not know if we shall continue the habit of eating four or five meals daily or not, but judging from the looks of some of our genial members, we are well fed in Sonoma County.

At our next meeting which will be held in Santa Rosa, we will elect officers for 1907.

G. W. MALLORY, Secretary.

ORANGE COUNTY.

The Orange County Medical Society met in regular session November 13th, with sixteen members present. Drs. C. L. Rich and John S. Gowan were elected members of the Society.

Our State Senator, Hon John N. Anderson sent a request that the Society take some action in regard to the repeal of the compulsory vaccination law. He stated that he was receiving a great deal of the anti-vaccination literature, and wanted to be governed by the wishes of the physicians of the county.

The Society appointed a committee consisting of Drs. Freeman, Burlew and Dryer to draft resolutions for the action of the Society at its next regular meeting. The Secretary was also instructed to communicate with the Riverside Society asking them to take similar action as that county is in our senatorial district.

Dr. D. W. Hasson read a very interesting paper on "Puerperal Sepsis," which received its full share of discussion.

H. G. GORDON. Secretary.

SAN BERNARDINO COUNTY.

The San Bernardino County Medical Society held its first meeting since the summer vacation on November 14, 1906, in the Y. M. C. A. parlors at Redlands. The president, Dr. T. M. Blythe, called the meeting to order at 2 p. m. The members present were Drs. W. B. Power, Hoell Tyler, W. A. Taltavall, G. G. Moseley, Woods Hutchinson, G. K. Abbott, E. W. Burke, J. L. Avey, and Dr. Julia A. White, a visitor. Dr. Tyler read a paper on "The Role of the Mind in Tuberculosis." Dr. E. W. Burke read a paper on "Placenta Previa." Both were excellent papers. A profitable discussion followed the reading of these papers.

Dr. Woods Hutchinson asked the members to prepare a list of the drugs they frequently used, also a list of the ones occasionally and rarely used. The Doctor intends to submit the same questions to a number of the societies throughout this and other States, with a view of learning how many of the drugs of the Materia Medica are in practical use by the members of the profession. Dr. G. R. Owen was elected to membership in the society. The applications of Drs. W. R. Davidson and Julia A. White were received and referred to the board of censors. The Society then adjourned to hold its next regular meeting in San Bernardino.

D. C. STRONG, Secretary.

MARIN COUNTY.

At the regular meeting of the Marin County Medical Society for November, the Society unanimously approved the assessment of $3.00 for the ensuing year. The needs of the State Society were discussed, and $25.00 appropriated from the treasury as a donation to the State Society.

PUBLICATIONS.

Diseases of the Nervous System Resulting From Accident and Injury. By Pearce Bailey, M. D., Clinical Lecturer in Neurology, Columbia University, New York City; Consulting Neurologist to the Roosevelt, St. Lukes, and Manhattan State Hospitals, etc. New York and London. D. Appleton and Co. 1906. 627 pages.

After a technical introduction in which the usual methods of examination are described in fair detail, the subject matter is arranged under three principal heads. In part one, the "Organic Effects of Injury to the Nervous System" are considered, in part two "The Functional Effects of Injury" are reviewed, whilst part three is devoted to "Medico-legal Considerations," with especial reference to malingering.

The greatest interest attaches to the last two sections in which the author analyzes the allied neuroses. Many of the conditions here described have, in one form or another, been a source of confusion to the general practitioner, often rendering his testimony as an expert witness of little value if not actually detrimental. Hysteria, whether it be considered the expression of an irritable cortex, an idiopathy inextricably blended with what we call "temperament," or a definite post-traumatic complex, may be taken as a type of the neuroses. And so often does it enter as a factor into the problems of every-day practice that knowledge of the characteristic phenomena should be more widely diffused. Owing to the intangible nature of the traumatic neuroses, the impossibility of referring them to an established morphological change, and the inconstancy of the clinical picture, however, it is not surprising that the most striking signs are frequently overlooked. The terms "functional and organic," "subjective and objective," are much too loosely employed; are assigned rather indefinite values; and are not as a rule accurately differentiated.

Any one at all conversant with the literature of the neuroses, will concede that the border-line distinctions have been drawn by the author with good judgment and reasonable clearness of outline. A need has long existed for authoritative statements in this branch of medical science, both for the guidance of those who may give expert testimony, and those whose duty it is to weigh the evidence. The present volume must be considered a substantial contribution to the subject. The text is enriched by numerous case reports, and copious references to a fairly extended bibliographical appendix. The illustrations are, for the greater part, inferior, being deficient in number and lacking distinctness of detail. C. Q.

A Text-Book of Materia Medica, Therapeutics and Pharmacology. By George F. Butler, Ph. G., M. D., Associate Professor of Therapeutics in the College of Physicians and Surgeons, Chicago; Professor of Medicine and Therapeutics, Dearborn Medical College. W. B. Saunders Company. 1906.

Four years have passed since the appearance of the last edition of this work. During this time there has been a noteworthy activity in the study of pharmacological phenomena. Researches in the newly opened fields of physical chemistry have had a large part in the interpretation of physiological functions and this has to a remarkable degree affected experimental pharmacology. The results, in many instances striking, call for a revision of older views. Professor Jelliffe, of Columbia University, the editor of the present edition, has made excellent use of the practical results of this newer work. This is especially well seen in his discussion of the dissociation theory. The general arrangement of the book has been changed with reference to the classification of drugs. While it has been recognized that any system of grouping has its drawbacks, the plan of considering together drugs having physiological similarity is best calculated to engage the interest of medical students. In addition to the officinal drugs many of the newer compounds recently introduced into medical practice are discussed, especially their toxicology. Throughout the volume the scientific interest and practical side of the discussion are nicely sustained. For practitioner or student it will be an invaluable work of reference. A. J. L.

A Compend of Materia Medica, Therapeutics, and Prescription Writing. By Samuel O. L. Potter, M. D., M. R. C. P. Lond. Formerly Professor of the Principles and Practice of Medicine in the Cooper Medical College of San Francisco, etc. P. Blakiston's Son & Co., Philadelphia. 1906.

Materia Medica and Therapeutics. By Edward J. Kiepe, Ph. G., M. D. Professor of Materia Medica in the Department of Pharmacy and Adjunct Professor of Materia Medica and Pharmacology in the Medical Department, University of Buffalo. Lea Brothers & Co., Philadelphia. 1906.

The reviewer does not feel that either of these two compends call for any special comment. One is a new book and the other a new edition of a well known work. The object of both is to present in an epitomized form the subject of which they treat. Intended chiefly for medical students, brevity of statement is one of the principal features. The text of both has been brought into conformity with the eighth revision of the U. S. Pharmacopoeia. In Dr. Potter's manual there has been some attempt to clasisfy drugs from the therapeutic standpoint rather than from their chemical relationships; Dr. Kiepe, on the other hand, does not evidently see much advantage in this for the arrangement is merely alphabetical. Moreover the last named work is not nearly so comprehensive as the former since it is restricted to the officinal list. The therapeutical section is also less satisfactory. Both compends are excellent, but we believe that the older book will still retain its well earned popularity. A. J. L.

Golden Rules of Surgery. Aphorisms, Observations and Reflections on the Science and Art of Surgery. By Augustus Charles Bernays, A. M., M. D., M. R. C. S., Life Member of the German Society for Surgery of Berlin, Chief Surgeon Lutheran Hospital, etc. The C. V. Mosby Medical Book Co., St. Louis. 1906.

This little book, gracefully dedicated to Dr. Charles H. Mayo, contains a fund of rich information based upon the author's surgical experience during the last thirty years. Throughout the volume will also be found philosophical causeries of considerable interest. The opening chapter on the making of a surgeon is excellent. The prevailing idea, elsewhere treated by Osler, is that the creative, pathfinding, or epoch-making ideas come to men before they are forty years of age; therefore the education of a surgeon should begin early. The major portion of the book is devoted to the "Golden Rules of Surgery," a series of surgical aphorisms after the manner of Hurry Fenwick. The Reminiscences in the concluding chapter are entwined about no less personalities than the great morphologist, Gegenbaur, Gustav Simon, Joseph Lister, Marion Sims, and V. Langenbeck, surgeons, and Charles Darwin and Huxley. A. J. L.

Clinical Bacteriology and Haematology for Practitioners. By W. D'Este Emery, M. D., B. Sc. Lond. Clinical Pathologist to King's College Hospital and Pathologist to the Children's Hospital, Paddington Green; formerly Assistant Bacteriologist to the Royal Colleges of Physicians and Surgeons, and Sometime Lecturer on Pathology and Bacteriology in the University of Birmingham. P. Blakiston's Son & Co., Philadelphia. 1906.

Among the many methods of clinical investigation those of the bacteriologist have for a long time occupied a prominent position. Unfortunately, however, their general practical application has been much restricted. While all concede that in many cases much valuable information may be obtained by such investigations, the general criticism has been that they are not often possible on account of the technical skill and laboratory facilities required. With this in mind, Dr. Emery has endeavored in his book to bring the bacteriological laboratory closer to the bed-side by showing that with the aid of simple methods useful results may be obtained. The author takes the well grounded position that the examination on the spot by the practitioner may be of far greater value than the one made by a bacteriologist at a distance. The correctness of this view is at once apparent since experience shows that a report from a pubilc laboratory, whilst of considerable value in supplying facts, the inferences to be drawn therefrom will largely depend on the more or less intimate knowledge of the patient's history and the manner in which the material for examination has been obtained. The subject matter of the book is, for the most part, devoted to clinical bacteriology with two brief and yet excellent sections on hematology and cyto-diagnosis. The descriptions of the simple technical methods advocated are good, and the interpretation of laboratory findings is well and practically discussed. It does not seem to us, however, that the author sufficiently emphasizes the caution necessary in the conclusions to be drawn from direct swab examinations in cases of suspected diphtheria. Again, our surprise is even greater in reading that, next to the influenza bacillus, the most important excitant of clinical influenza is the micrococcus catarrhalis.

For the diagnosis of renal or bladder tuberculosis the author recommends the cover-slip method, but most bacteriologists would prefer to rely upon the inoculation test. The obsolete method of obtaining, by simple skin puncture, blood for cultural purposes should have been entirely omitted, since no reliance whatever can be placed upon the results. Altogether, the book leaves a very favorable impression although it seems to us that the author in his desire to simplify methods has sometimes done so at the expense of exactness and reliability.

A. J. L.

The Dynamics of Living Matter. By Jacques Loeb, Professor of Physiology in the University of California. The Columbia University Press. The Macmillan Company, Agents.

This book is based upon a series of lectures delivered at Columbia University in the spring of 1902. The aim was to give an account of the lecturer's investigations and views on the dynamics of living matter, in other words a discussion of development, self-preservation and reproduction chiefly from the physico-chemical point of view. The character of the subjects treated precludes any extended review here; we can do no more than indicate the contents of the volume in a very general way. Moreover, the results of Professor Loeb's researches have been freely commented upon elsewhere. After a short introduction in which the work of Mandel and de Vries receives adequate recognition, the writer devotes three chapters to a consideration of the general chemistry of life phenomena, the physical constitution of living matter, and the physical manifestations of life. Of perhaps less general medical interest are the discussions on the role of electrolytes, the effects of heat and radiant energy upon living matter, heliotropism, and tropisms and related phenomena. On the other hand, the sections on fertilization and heredity have a more common interest. The volume is concluded with the article on the dynamics of regenerative processes.

A. J. L.

Prophylaxis and Treatment of Internal Diseases, Designed for the Use of the Practitioner and of the Advanced Students of Medicine. By F. Forchheimer, M. D. Professor of Theory and Practice of Medicine and Clinical Medicine, Medical College of Ohio, Department of Medicine of the University of Cincinnati, etc. D. Appleton & Company, New York. 1906.

There has been a long felt want in our medical literature for just such a book as the Prophylaxis and Treatment of Internal Diseases. It is well conceived and ably written, bringing the sum of therapeutic knowledge to date. The author has given us sound advice when he says: "Meddlesome medication does more harm than good"; also, "Be sure of one drug and use it, till something is proved better." Serum treatment with statistics, organo-therapy, hydrotherapy, massage and gymnastics, are handled in a clear and concise manner. Dietetics has also received consideration. In the treatment of diseases of the heart, variation of blood pressure as an indication for therapeutic intervention, has not been touched upon. There is no other class of diseases where such keen perception and good judgment is necessary, and we should have liked to have had the benefit of the author's experience in a more free discussion of symptoms and indications, with possibly the citation of a few illustrative cases. The work shows much care and thought and is most valuable to both student and practitioner.

J. B. F.

A Nurse's Handbook of Medicine. By J. Norman Henry, M. D., Clinical Professor of Medicine, Woman's Medical College of Pennsylvania; Assistant Physician, Philadelphia Hospital; Physician to Out-Patient Department and Lecturer to Nurses, Pennsylvania Hospital, etc. J. B. Lippincott Co., Philadelphia and London. 1906.

This book, based on the lectures delivered by Dr. Henry during the last four years to the nurses of the Pennsylvania Hospital, fills a long-felt want. The author confines himself to a consideration of the more common diseases which are of interest to nurses. There is also a very excellent though brief chapter on diet. It is to be regretted that the definitions contained in the General Considerations are so vaguely and loosely worded as to be, in some instances, misleading; and we are certainly at variance with the author when he states that typhoid fever is definitely limited to a four weeks' course and that one attack confers immunity against another. Further, the wisdom of incorporating the drug treatment of diseases will no doubt be questioned by many; it would have been much better to have entirely omitted this phase of the subject and devoted this space to a fuller consideration of the nursing side. Aside from this, however, the book is a good one and we do not hesitate to recommend it to the class of readers for whom it is intended.

K. I. L.

The Operating Room and the Patient. By Russell S. Fowler, M. D. Surgeon to the German Hospital, Brooklyn, New York. W. B. Saunders Company, Philadelphia and London. 1906.

The appearance of this small book does not call for comment. Whilst intended primarily for internes and nurses, it will undoubtedly be found of great value by a large class of practitioners whose training is deficient in this respect. The opening chapter is an excellent though brief discussion of the disposition of the operating room and the conduct of its personnel. There are two good sections devoted to the Instrument and Supply Room. The subject of Anesthesia is admirably treated; while all matters pertaining to the patient are very fully considered in the two succeeding chapters. Finally, the book terminates with a list of instruments required in different operations. The text is very fully illustrated.

A. J. L.

Eating To Live With Some Advice to the Gouty, Rheumatic, and the Diabetic. A Book for Everybody. By John Janvier Black, M. D. Member of the College of Physicians of Philadelphia; Member of the Delaware State Medical Society; Author of "Forty Years in the Medical Profession," "Cultivation of the Peach, Pear, Quince, and Nut-Bearing Trees," etc. J. B. Lippincott Company, Philadelphia and London. 1906.

In the past when the care of the sick remained largely in the hands of the women-folk, the composition of remedies, and the making of dinners went on in the same apartment. Indeed, as Jeafferson has remarked, hunger and thirst were but two out of a list of diseases that were ministered to by the attendants round the kitchen table. The same book held the receipts for dishes and the recipes for electuaries. In many an old hall, in England, the manual still remains from which four centuries ago the lady of the house learned to dress a boar's head or cure a cold. So far as dietetics is concerned, the traditional position has remained to this day practically unchanged. Most physicians disdain to give dietetic instruction to a patient beyond the most general directions. Nevertheless, Sir Theodore Mayerne, the most eminent physician of his time, thought it worth while to write, "Excellent and Well-Approved Receipts in Cookery, with the Best Way of Preserving."

Within the last few years, noteworthy contributions to the subject have been made. The investigations of von Leibig, Sir Henry Thompson, Atwater, and others have advanced dietetics from the realm of mere empiricsm to almost an exact science.

Notwithstanding, this branch of medical knowledge still holds a subordinate position in the teachings of our medical colleges. This is all the more surprising if we consider that it is equal if not of greater value than the giving of pills and potions.

Dr. Black in his interesting book presents the subject in a clear and practical manner; and the technical features are sufficiently simplified to be readily understood by the layman. It is a "Book for Everybody." Free use of the publications of the United States Department of Agriculture has been made. Thus the excellent tables on the composition and food values of a number of American foods, are taken from Dr. Atwater's lists. We have been well impressed with Dr. Black's work; physicians may read it with advantage to themselves and their patients. A. J. L.

Human Sexuality. A Medico-Literary Treatise on the Laws, Anomalies, and Relations of Sex, with special reference to Contrary Sexual Desire. By J. Richardson Parke, Sc. B., Ph. G., M. D. Professional Publishing Co., Philadelphia. 1906.

This book is noted editorially in the present issue. All claim for consideration as a scientific treatise is forfeited by the inability of the author to resist a spirit of flippancy which at times is almost indecent. One quotation will suffice. Speaking of infibulation, or the practice of putting a padlock through the labia to insure chastity, the author says: "The latter practice, from its undoubted efficacy, suggests reviving and making it a portion of our modern sacrament of marriage. It ought to prove a source of wonderful comfort to the jealous young husband to know that the frisky organ, which he possesses a not unnatural desire to retain exclusive control of, is securely locked, and the key in his vest pocket."

The Modern Materia Medica. Published by the Druggists Circular, 100 William street, New York City. 1906.

This little volume is intended to give a list of the newer additions to the materia medica, with their source, chemical and physical porperties, therapeutic action, dosage, etc. It is a very handy little volume and its value and usefulness will be greatly enhanced by the forthcoming work on "New and Non-Official Remedies," to be published by the American Medical Association. Of course there are many more articles in the book under discussion than will be given in the latter publication. The two together, however, should make an ideal pair of reference books when questions concerning the newer preparations present themselves. This book finds frequent use in the Journal office and is gratefully acknowledged.

"GREAT AMERICAN FRAUD."

The series of articles by Samuel Hopkins Adams, which appeared under this title in Collier's Weekly, have been reprinted in pamphlet form by the American Medical Association. Copies may be had for six cents, which should be sent to the Association, 103 Dearborn Avenue, Chicago. Every physician should have one or two copies of this pamphlet on his waiting room table.

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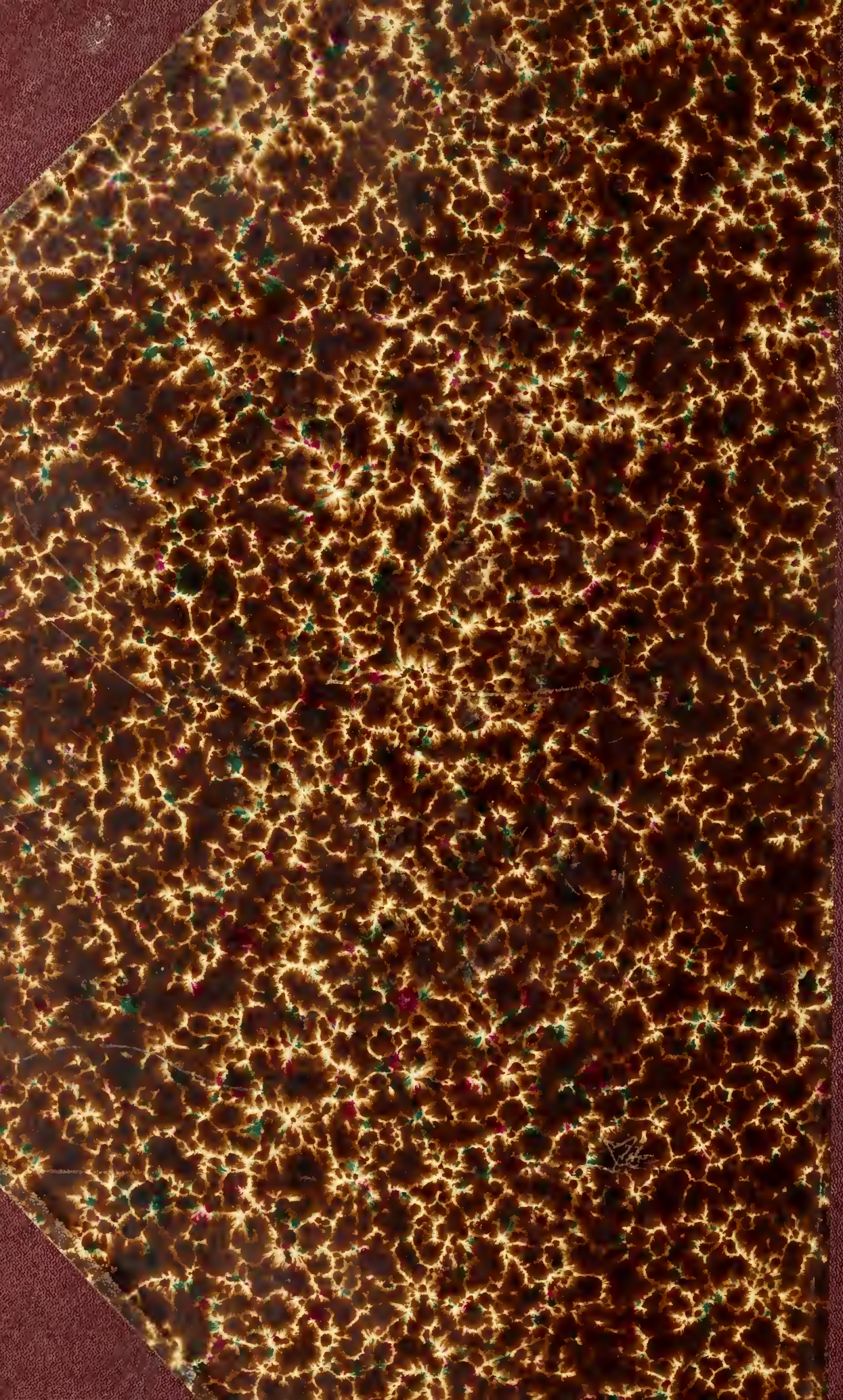
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